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Software Product Description

PRODUCT NAME: CTS-500, Version 4, Commercial Transaction System   **SPD 13.6.4**

DESCRIPTION:

CTS-500 is a software system configuration designed to support general purpose business-oriented data processing applications for the DEC Datasystems 530, 560 and 570 series computer systems. CTS-500 supports an environment of multiple and concurrent interactive data processing, user program development, and batch mode operations activities. Up to 63 concurrent terminal users in both local and remote locations can interact with multiple application tasks. Tasks can share computational, storage, and input/output services provided by the CTS-500 system.

CTS-500 consists of four basic, commercially oriented bundled software packages. All of these include a data management file service system, the RSTS/E operating system, and SORT-11 utility. Specific contents of each of these four software packages are as follows:

CTS-500 Level 2A (CTS-500/2A) — Includes the RSTS/E Version 6C operating system and SORT-11 utility. (RSTS/E Version 6C includes the BASIC-PLUS language processor and RMS-11 record management services). Also included in CTS-500/2A are the DMS-500 data management services package with single key ISAM (indexed sequential access method) and the related DMS-500 sort utility. The BASIC-PLUS language does not support the RMS-11 file organizations and record access modes. The SORT-11 utility cannot sort DMS-500 ISAM files.

CTS-500 Level 2B (CTS-500/2B) — Includes the RSTS/E Version 6C operating system, SORT-11 utility, the DMS-500 data management services package, and the DIBOL-11 business language processor and DECFORM utility.

CTS-500 Level 3A (CTS-500/3A) — Includes the RSTS/E Version 6C operating system, SORT-11 utility, the RMS-11K multikey indexed sequential access record management services, and the BASIC-PLUS-2 language processor.

CTS-500 Level 3B (CTS-500/3B) — Includes the RSTS/E Version 6C operating system, SORT-11 utility, RMS-11K record management services, the BASIC-PLUS-2 language processor, and the DIBOL-11 language processor and DECFORM utility.

These basic CTS-500 software packages are sold and/or supported only with appropriate DEC Datasystem 500 series hardware systems.

MINIMUM HARDWARE REQUIRED:

A valid DEC Datasystem 500 series system that meets the following main memory and mass storage requirements:

Main Memory Requirements

At least 128K bytes of main memory are required for the use of small system utilities, the BASIC-PLUS language processor, DMS-500 data management services, and/or DIBOL/DECFORM. The use of any other language processor and/or RMS-11 or RMS-11K is not supported in systems with 128K bytes of main memory. At least 192K bytes of main memory are required for using language processors other than BASIC-PLUS, and using RMS-11 or RMS-11K.

Mass Storage Requirements

The following mass storage subsystems are considered minimal for:

- installing the system
- loading software updates (software distribution)
- backing up a system disk or second disk drive
- storing all necessary components of the software system

One of the following mass storage and software distribution media support systems is required:

- RP04 disk subsystem (D531 or D571 systems) with one of the following:
    1. TU16 or TE16 9-track magnetic tape transport (distribution on 9-track tape).
    2. TU10W or TE10W 7- or 9-track magnetic tape transport (distribution on 7- or 9-track tape).
    3. An additional RP04 disk pack drive and an RX11 Flexible Diskette system.
    4. An additional RP04 disk pack drive and a TU10, TE10, TU16 or TE16 tape system for software distribution and/or backup, (distribution on 7- or 9-track tape), or a TS03 tape transport for software distribution only (distribution on 9-track tape).
- RP05 disk subsystem (D532 systems) with one of the following:
    1. TU16 or TE16 9-track magnetic tape transport (distribution on 9-track tape).
    2. TU10W or TE10W 7- or 9-track magnetic tape transport (distribution on 7- or 9-track tape).

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3. An additional RP05 disk pack drive and an RX11 Flexible Diskette system.

4. An additional RP05 disk pack drive with a TU10, TE10, TU16, or TE16 tape system for software distribution and/or backup, (distribution on 7- or 9-track tape), or a TS03 tape drive for software distribution only (distribution on 9-track tape).

● RP06 disk subsystem (D533 systems) with one of the following:

1. TU16 9-track magnetic tape transport (distribution on 9-track tape).

2. TU10W or TE10W 7- or 9-track magnetic tape transport (distribution on 7-or 9-track tape).

3. An additional RP06 disk pack drive and an RX11 Flexible Diskette system.

4. An additional RP06 disk pack drive with a TU10, TU16, TE10, or TE16 tape transport sub-system backup and distribution, (distribution on 7- or 9-track tape), or a TS03 tape transport for software distribution only (distribution on 9-track tape).

● RPR02 or RP03 disk subsystem (D530 or DS540 systems) with one of the following:

1. TU16 or TE16 9-track magnetic tape transport (distribution on 9-track tape).

2. TU10W or TE10W 7- or 9-track magnetic tape transport (distribution on 7-or 9-track tape).

3. An additional RPR02 or RP03 and an RX11 Flexible Diskette system.

4. An additional RPR02 or RP03 with a TE10, TU16, or TE16 tape system for software distribution and/or backup (distribution on 7- or 9-track tape), or a TS03 tape transport for distribution only (distribution on 9-track tape).

● RM03 disk subsystem (D570 systems only) with one of the following:

1. TU16 or TE16 9-track magnetic tape transport and appropriate controller (distribution on 9-track tape).

2. TU10W or TE10W 7- or 9-track magnetic tape transport (distribution on 7- or 9-track tape).

3. An additional RM03 disk pack drive and an RX11 Flexible Diskette system.

4. An additional RM03 disk pack drive with either a TU10W, TW10W, TU16, or TE16 tape system for software distribution and/or backup, or a TS03 tape transport for distribution only (distribution on 7- or 9-track tape).

● Dual RK05J, or RK05F and RK05J, disk subsystem (D534 systems only) with one of the following:

1. An additional (third) RK05J or a second RK05J drive (for systems with RK05F).

2. A TU10W or TE10W, a 7- or 9-track TU16, or a 9-track TE16 magnetic tape sub-system for backup and/or distribution, or a TS03 tape drive for distribution only.

NOTE:
The volume other than the system disk cartridge (the second) requires backup on peripheral storage devices other than the system device. Note that the amount of disk storage available on a minimal RK05 based system may not be sufficient to support all the bundled CTS-500 and optionally supported software.

● An RK06 disk subsystem (D537, D567, or D577 systems) with either one of the following:

1. A second RK06 or TS03 tape drive for software distribution only (distribution on RK06 or 9-track tape).

2. Two additional RK06 drives or one additional RK06 and a TU10, TE10, (7- or 9-track) TU16 or (9-track) TE16 tape system for backup of second RK06. A TS03 tape drive can also be included in place of either one of the above, for software distribution only.

NOTE:
A second disk drive or another mass storage device is required for backup of the system storage device.

● An RL01 disk subsystem (D535 system) with one of the following:

1. TU16 and TE16 9-track magnetic tape transport and appropriate controller (distribution on 9-track tape).

2. TU10W or TE10W 7- or 9-track magnetic tape transport (distribution on 7- or 9-track tape).

3. An additional RL01 disk drive with either a TU10W, TW10W, TU16, or TE16 tape system for software distribution and/or backup, or a TS03 tape transport for distribution only (distribution on 7- or 9-track tape).

● An RK07 disk subsystem (D538 system) with either one of the following:

1. A second RK07 or TS03 tape drive for software distribution only (distribution on RK07 or 9-track tape).

2. Two additional RK07 drives or one additional RK07 and a TU10, TE10, (7- or 9-track) TU16 or (9-track) TE16 tape system for backup of second RK07. TS03 tape drive can also be included in place of either one of the above, for software distribution only.

OPTIONAL HARDWARE:
Mass Storage Devices
● Up to a system total of eight RK05J DECpack cartridge drives (for dual RK05J systems only).

● Up to a system total of four RK05J or RK05F DECpack drives (for fixed/removable RK05 cartridge drive based system only).

● Additional parity main memory up to a total of 256K bytes (248K addressable) for D530 and D560 systems and up to 3.84M bytes for D570 systems.

- Floating Point Processor (FP11-C) or Floating Point Instruction Set (FP11-A).
- Up to a system total of eight RK06 disk drives attached to RK06 based systems.
- Up to a system total of eight RL01 disk drives attached to RL01 based systems.
- Up to a system total of eight RK07 disk drives attached to RK07 based systems.
- Up to a system total of eight RPR02 or RP03 disk drives attached to an RPR02 or RP03 based on D530 or DS540 or DS545 system. Can be a mixed drive configuration on D530 (RP11 or RP11-E controller only).
- Up to a system total of eight RP04, RP05 or RP06 drives on an RP04, RP05 or RP06 based system. May be mixed drive configurations. RP06 packs cannot be mounted on RP04 or RP05 drives.
- RF11 Fixed Head Disk System with up to eight drives; or RJS03/RJS04 swapping disk for D530 series (RWS03/RWS04 for D570 series) with a total of four drives maximum.
- RX11 Flexible Diskette System with total of up to eight diskette drives. These may be used only for software media interchange or distribution.
- TJU16 or TJE16 (D530 and DS540 systems only) or TWU16 or TWE16 (for D570 systems only) 9-track 800/1600 bpi tape subsystem with up to seven additional TU16 and/or TE16 tape drives (8 total maximum).
- TME11-A, -B 7- or 9-track 800 bpi tape system with up to seven additional (8 maximum) TE10W-B or TE10W-A tape drives.
- TMB11 system with a total of two TS03 drives.

Terminals and Unit Record Equipment
- Up to eight LA11, LP11, or LS11 local (not more than 25 feet from CPU) line printers.
- One (1) CR11, CD11, or CM11 card reader.
- System total of 63 terminals (keyboard-printer and/or keyboard display printer only of the following types: LA30, LA35, LA36, LT33, LT35, VT05, VT50, VT52, RT02, VT50-H and/or IBM 2741 or equivalent).
- Up to 8 remote LA180S (LA180-C or LA180-E) print-only (serial asynchronous communications line interface) terminals will be supported as a spooled line printer only subject to the following constraints and/or conditions:
  1. The LA180S print-only terminal must be connected to the CTS-500 system by a full-duplex line. Operation of this device is not supported by the CTS-500 terminal driver software.
  2. The LA180S must be handled as a spooled line printer by the CTS-500 operating system.
  3. No provision is made by either the software or hardware to ensure integrity of the data transmitted/received on the channel or line.
  4. CTS-500 software does not automatically clear or recover one LA180S-specific synchronization condition. Manual operator intervention is required.

- Up to 15 of the 63 user terminals can be interfaced by single line asynchronous interface line controllers (i.e. KL11, DC11, DL11). The remaining 48 must be interfaced by 16- or 8-line asynchronous multiplexers, (i.e. DH11-AD, DH11-AE, DZ11-E, or DZ11-A). The DH11-A multiplexers must be equipped with a DM11-BB modem control option if auto answer and/or certain other features provided by EIA, RS-232, or CCITT recommendation V.24 compatible interfaces are to be used by the system. The DZ11 multiplexer is capable of supporting full modem control of Bell system type 103 and 113 modems, or equivalent, only.

PREREQUISITE SOFTWARE:
None

OPTIONAL SOFTWARE:
- PDP-11 COBOL Version 3 or later
- FORTRAN IV for RSTS/E, Version 2 or later
- APL-11, Version 1
- RPG II for RMS-11K, Version 8 or later (option for level 3A or 3B)
- RPG II for CTS-500, Version 7.08 (option for level 2A or 2B)
- RMS-11K, Version 1.5/BASIC-PLUS-2 (option for CTS-500/3A)
- DATATRIEVE-11, Version 1
- CTS-500/2780, Version 3.0 (RSTS/E-2780)
- DIBOL-11/DECFORM, Version 4C (option for level 2A systems)
- DIBOL-11/DECFORM, Version 4D (option for level 2A, 2B, and 3A systems)

TRAINING CREDITS:
For CTS-500/2A and CTS-500/3A:
Three (3)

For CTS-500/2B and CTS-500/3B:
Four (4)

Applies only to options that include support services. Consult the latest Educational Services Catalog at your local office for the available RSTS/E and/or DIBOL/DECFORM courses, course requirements, and guidelines.

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.
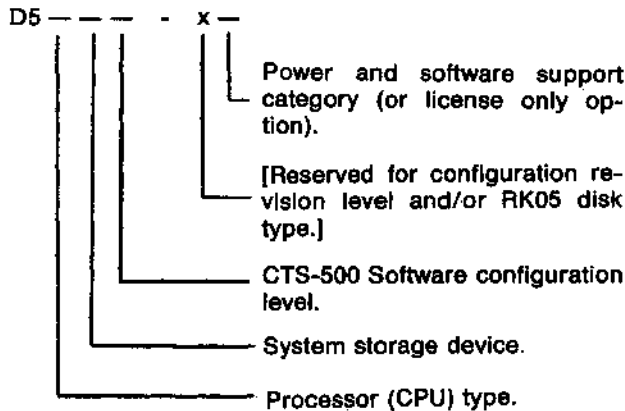
ORDERING INFORMATION:

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A single-use license only option is a license to copy the software previously obtained under license, and use such software in accordance with DIGITAL's Standard Terms and Conditions of Sale. The category of support applicable to such copied software is Category C.

The following character keys are used in the hardware/software system order codes to represent the processor type, system device, software configuration level, form of power and software option. They must appear in the proper position in the order number, as indicated below:

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D5 — — — - x —
      |  | |  |   |
      |  | |  |   └─ Power and software support
      |  | |  |      category (or license only op-
      |  | |  |      tion).
      |  | |  |
      |  | |  └─────── [Reserved for configuration re-
      |  | |           vision level and/or RK05 disk
      |  | |           type.]
      |  | |
      |  | └────────── CTS-500 Software configuration
      |  |             level.
      |  |
      |  └───────────── System storage device.
      |
      └──────────────── Processor (CPU) type.
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Processor Type:
3 = PDP-11/34
6 = PDP-11/60
7 = PDP-11/70
System Device:
1 = RP04 disk pack based system
3 = RP06 disk pack based system
4 = RK05 DECpack based system
5 = RL01 disk cartridge based system
6 = RM03 disk pack based system
7 = RK06 disk cartridge based system
8 = RK07 disk cartridge based system

Software Configuration Level:
A = CTS-500 Level 2A (CTS-500/2A)
B = CTS-500 Level 2B (CTS-500/2B)
C = CTS-500 Level 3A (CTS-500/3A)
D = CTS-500 Level 3B (CTS-500/3B)
Power and Software Option
A = 60 Hz power, single-use license, binaries, documentation, and support services.
D = 50 Hz power, single-use license, binaries, documentation, and support services.
Y = 60 Hz power, single-use license only, no binaries, no documentation, and no support services.
Z = 50 Hz power, single-use license only, no binaries, no documentation, and no support services.
For example:

D534A CD   D530 system (includes PDP-11/34 CPU, dual RK05J DECpack, CTS-500/2A software configuration level, and 50Hz power supply), single-use license, binaries, documentation and support services.

Standard Options

D53— — -C—   D530 system, single-use license, binaries, documentation, support services (System Device: 1, 3, 5, 6, 7, 8; Software Configuration Level: A, B, C, D; Power and Software Option: A, D)

D53— — -C—   D530 system, single-use license only (System Device: 1, 3, 5, 6, 7, 8; Software Configuration Level: A, B, C, D; Power and License: Y, Z)

D534— -C—   D530 system with two RK05-J removable disk cartridge drives, single-use license, binaries, documentation, support services (Software Configuration Level: A, B, C, D; Power and License: A, D)

D534— -C—   D530 system with two RK05-J removable disk cartridge drives, single-use license only (Software Configuration Level: A, B, C, D; Power and License: Y, Z)

D534— -D—   D530 system with one RK05-J removable disk cartridge drive and one RK05-F non-removable disk cartridge drive, single-use license only (Software Configuration Level: A, B, C, D; Power and License: Y, Z)

D56— — -A—   D560 system, single-user license binaries, documentation support services (System Device: 1, 3, 6, or 7; Software Configuration Level: A, B, C, D; Power and License: A, D)

D56— — -A—   D560 system, single-use license only (System Device: 1, 3, 6 or 7; Software Configuration Level: A, B, C, D; Power and License: Y, Z)

D57— — -A—   D570 system, single-use license, binaries, documentation, support services (System Device: 1, 3, 6, 7; Software Configuration Level: A, B, C, D; Power and License: A, D)

D57——-A— D570 system, single-use license only (System Device: 2, 3, 7; Software Configuration Level: A, B, C, D; Power and License: Y, Z)

The following key (D, E, F, Q, T, V, Z) represents the distribution media for the product and must be specified at the end of the order number, e.g., QP512-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
Z = No hardware dependency

Upgrade Options

To CTS-500 Level 2B:

The following option is available as an upgrade kit from CTS-300 Version 1 or later for use on the same single CPU on which CTS-300 Version 1 or later is licensed. The license previously granted for CTS-300 Version 1 or later shall be extended to cover this upgrade.

QP512 -A— Single-use license, binaries, documentation, support services (includes three (3) training credits) (media: D, E, F, Q, T, V)

QP512 -C— Single-use license, binaries, documentation, no support services (media: D, E, F, Q, T, V)

To CTS-500 Level 3B:

The following option is available as an upgrade kit from CTS-300 Version 1 or later for use on the same single CPU on which CTS-300 Version 1 or later is licensed. The license previously granted for CTS-300 Version 1 or later shall be extended to cover this upgrade.

QP524 -A— Single-use license, binaries, documentation, support services (includes three (3) training credits) (media: D, E, F, Q, T, V)

QP524 -C— Single-use license, binaries, documentation, no support services (media: D, E, F, Q, T, V)

Update Options

Users of CTS-500 Version 3 whose specified Support Category warranty has expired, or whose RSTS/E Standard Program Update Service has expired, may order under their CTS-500 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 otherwise.

QR430 -H— RSTS/E Version 6C binaries, documentation (media: D, E, F, T)

QP601 -H— SORT-11 Version 2 binaries, documentation (media: D, E, T)

ADDITIONAL SERVICES:

QR430 -3— RSTS/E Standard Binary Program Update Service (media: D, E, F, T)

QR430 -1— RSTS/E Dispatch Subscription Service (media: Z)