

Software Product Description

PRODUCT NAME: ICCN-11/14, Version 1, Industrial Computer Controller Networks SPD 10.67.0

DESCRIPTION:

ICCN-11/14 is a software package that provides support for Industrial 14/30 and 14/35 controllers under the RSX-11M operating system. ICCN-11/14 includes the ODP-143/11, BOOL-143/11, PAL-143/11 and SET-143/11 utilities. ICCN-11/14 is implemented under RSX-11M as a device driver for the communications interfaces to the Industrial 14 controller(s) and as DIGITAL provided user-level tasks and subroutines. Permanent memory residency requirements are approximately 2K words for device driver code supporting Industrial 14 communication links. The ODP-143/11, BOOL-143/11, PAL-143/11 and SET-143/11 utilities require an 8K partition.

The ICCN-11/14 package allows the following functions to be performed:

- Tasks written in FORTRAN or MACRO languages can read and set I/O status on Industrial 14 controllers in the network.
- Tasks written in FORTRAN or MACRO languages can pass partial or complete core image files stored on an RSX-11M systems device downline to any Industrial 14 in the network.
- Tasks written in FORTRAN or MACRO languages can read memory images from any Industrial 14 in the network for subsequent down-line loading or for on-line verification of memory content.
- Tasks written in FORTRAN or MACRO languages can receive data words transmitted by an Industrial 14 in the network. (This feature is called "unsolicited data" and requires use of the DC14-E High Speed Serial Interface: see Optional Hardware below.)
- Industrial 14 controller object code can be generated from Boolean format source programs using the BOOL-143/11 compiler and the optional ET-143/11 symbolic pre-processor program.
- Industrial 14 controller object code can be generated from assembly language source programs using the PAL-143/11 assembler.
- The on-line debugging program (ODP-143/11) can be used during the initial start-up, or for subsequent trouble shooting, of any Industrial 14 in the network. ODP-143/11 provides useful debugging facilities including down-line memory loading, up-line memory dumping, verification of memory content; console listing and entry of memory content; I/O interrogation and alteration.

THROUGHPUT: - The throughput of ICCN-11/14 is a function of many variables, especially the PDP-11 central processor (CPU) used, the communication interface used, and the other activities executing concurrently in the RSX-11M system. For medium to high throughput systems, the DC14-DE high speed serial interface should be used. For low cost, local computer to controller connections, and where unsolicited data is not required, the DL11-C and DC14-F general purpose interface may be used.

MINIMUM HARDWARE REQUIRED:

Any valid RSX-11M configuration with:

- 2K words additional dedicated memory for the driver
- 8K word shareable partition for BOOL-, PAL-, SET-, and ODP-143/11

One of the following communication devices to Industrial 14 controllers:

1. DL11-C Asynchronous Interface, 20ma current loop (for connection to DC14-F general purpose interface within Industrial 14).
2. DC14-DE, -CE High Sped Serial Interface to Industrial 14 (for connection to DC14E interface within Industrial 14).

OPTIONAL HARDWARE SUPPORTED:

Additional communication devices to Industrial 14 controllers as listed above, up to 16 DL11-E and 15 DC14-CE's maximum.

PREREQUISITE SOFTWARE:

RSX-11M Operating System, Version 2

OPTIONAL SOFTWARE SUPPORTED:

None

TRAINING CREDITS:

None.

WARRANTY SUPPORT CATEGORY:

C. Software Support will be provided as listed in the Software Support Categories Addendum to this SPD.

UPDATE POLICY:

During the first year, Update Policy shall be in accordance with the Software Support Categories Addendum to this SPD. After the first year, updates, if any, will be made available according to then prevailing DIGITAL policies.

ORDERING INFORMATION:

This software is furnished under a license for use on a single CPU and can be copied and modified (with inclusion of DIGITAL's copyright notice) only for use on such CPU, except as may otherwise be provided in writing by DIGITAL.

The following key (D, E) represents the distribution media for the product and must be specified at the end of the "Q" number, i.e., QJ650-CD = binaries on 9-track magnetic tape.

D = 9-track Magnetic Tape

E = RK Disk (DECpack)

Standard Options

QJ650 -C- Single-use license, binaries, source modules for the driver, documentation, no support services (media: D, E)

ADDITIONAL SERVICES:

None

D10.67.0