



Software Product Description

PRODUCT NAME: OS/8 INDUSTRIAL BASIC Version 3

SPD 5.10.3

DESCRIPTION:

OS/8 Industrial BASIC is an extension and modification of OS/8 BASIC with additional functions and statements to support real-time industrial data acquisition and control. The extended functions support analog I/O, digital I/O and loading and reading of counters; all via the PDP-8 ICS. BASIC statements added permit the scheduling of segments, written in BASIC similar to subroutines, in response to contract interrupts, counters, console commands or timed operations. Like OS/8 BASIC, the system permits file management to the resident device, and program chaining. All standard OS/8 BASIC functions are available to OS/8 Industrial BASIC, except the user overlay and file I/O have been restricted. Industrial BASIC programs may be prepared, compiled, loaded and executed by means of simple keyboard commands. Alternatively, programs may be prepared under OS/8 for subsequent stand-alone processing under OS/8 BATCH. The run-time system permits file management and program chaining, while I/O device independence is maintained through the OS/8 Operating System. OS/8 Industrial BASIC permits convenient interfacing with user-written assembly language functions. OS/8 V3 is prerequisite software.

Extended OS/8 Industrial BASIC provides higher level language control of up to 4 Industrial 14/30 and 14/35 Programmable controllers. Asynchronous serial line links permit control, testing and reporting operations for the Industrial 14. Programs for the Industrial 14 can be loaded from, read by and verified (via the serial line link) with Industrial BASIC files.

The system supports up to 63 words of digital I/O including up to 40 A/O channels.

A run-time system can be generated on the OS/8 host system for use in a memory-based target system. File-oriented operations are excluded from the target machine run-time system. The transportation medium from host to target system is paper tape, cassette or floppy disk.

MINIMUM HARDWARE REQUIRED:

For an OS/8 host system:

PDP-8E, F or 8A

12K core memory

VT50 CRT-Alphanumeric Terminal, LA36 DECwriter or Teletype-writer

TD8-EM Dual Drive DECTape (or RK8E and TA8 Cassette)

MR8-EC ROM (for TD8-E)

DK8-EC (50Hz clock) (PDP-8/A requires 100Hz clock option and power-fail option boards)

ICS-8 Industrial Control Subsystem

KL8-JA (9600 baud maximum) for link to each Industrial 14 implemented

For a memory-based target system:

PDP-8E, F or 8A

12K Core Memory

KP8E Power-Fail

ICS-8 Industrial Control Subsystem

KL8-JA (9600 baud maximum) for link to each Industrial 14 implemented

DK8-EC (50Hz Clock) (PDP-8/A requires 100 Hertz clock system and power fail option boards)

TA8 cassette or paper tape reader (for program loading)

LA36 DECwriter, VT50 CRT-Alphanumeric Terminal or Teletype-writer

For Industrial 14:

Industrial 14/30 or 14/35

DC14-F asynchronous serial line (interface for output register 6)

OPTIONAL HARDWARE SUPPORTED:

For an OS/8 host system and memory-based target system:

LE-8 or LS-8F line printer

KE-8E EAE (Extended Arithmetic Element for 8/E,F)

TA8 Cassette

Memory to 32K

PREREQUISITE SOFTWARE:

QP015 OS/8 Version 3 Operating system (For QF095 only)

SUPPORT CATEGORY:

A; Software support will be provided as listed in the Software Support Categories Addendum to this SPD.

UPDATE POLICY:

No updates are planned for this product

ORDER 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.

Source and/or listing options are only available after the purchase of at least one full-support license and after either an OEM Agreement or End-User "Waiver of Support Agreement" is in effect.

The following key (C,N,Y,Z) represents the distribution media available for the product and must be specified at end of "Q" number i.e., QF090-AC= binaries on DECTape

C - DECTape Y - Floppy Disk
N - Cassette (TU60) Z - No hardware dependency

Standard Options

QF090-A_ Single use license binaries with Industrial 14
Support (includes OS/8 Operating System), documentation
Support Services (media, C,N)

QF095-A_ Single use license, binaries with Industrial 14
Support (does not include OS/8 Operating System),
documentation Support Services (media: C,N,Y).

Source/Listing Options

QF095-E_ Sources of complete Industrial BASIC system
(media: C)

QF095-F_ Listings on paper of complete Industrial BASIC
system (media: Z)

Update Options

QF095-H_ Update to OS/8 Industrial BASIC Version 3 without OS/8
(media: C,N)

