

# digital

# Software Product Description

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**PRODUCT NAME: OS/8 INDUSTRIAL BASIC, Version 3**

**SPD 5.10.5**

## **DESCRIPTION:**

OS/8 Industrial BASIC is an extension and modification of OS/8 BASIC that supports real-time industrial data acquisition and control. The extended functions support analog I/O, digital I/O, and loading and reading of counters on the PDP-8 ICS. Functional statements permit the scheduling of segments written in BASIC in response to contact interrupts, counters, console commands or timed operations. The system supports up to 63 ICS addresses and not more than 15 ICS modules of any one type. All standard OS/8 BASIC functions are available to OS/8 Industrial BASIC, except that the user overlay and file I/O facilities have been restricted. Like OS/8 BASIC, the system permits file management to the system resident device, and program chaining.

Industrial BASIC programs can be prepared, compiled, loaded and executed by means of simple keyboard commands. Alternatively, programs can 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.

A memory only 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:**

1. For an OS/8 host system:

Any valid OS/8 operating system configuration that includes:

For a PDP8-E:

- at least 12K words of memory
- KP8-E Powerfail auto restart
- DK8-EC 50Hz clock
- ICS-8 Industrial Control Subsystem
- KA8-E I/O BUS Interface

For a PDP8-A:

- at least 16K words of memory
- KM8-A Extended Option Board (includes Powerfail option)
- DKC8-A I/O Option Board (includes clock)
- ICS-8 Industrial Control Subsystem

2. For a Memory Based Target System:

For a PDP8-E:

- at least 12K words of memory
- KP8-E
- DK8-EC
- ICS-8
- KA8-E
- TA8 Cassette System
- PRS01 Paper Tape Reader
- Console terminal VT50, VT52, LA36, LT33

For a PDP8-A:

- at least 16K words of memory
- KM8-A
- DKC8-A
- ICS-8
- TA8 Cassette System
- PRS01 Paper Tape Reader
- Console Terminal

## **OPTIONAL HARDWARE SUPPORTED:**

Additional memory to a system total of 32K words  
KE8-E Extended Arithmetic Element for PDP-8/E or  
PDP8/F or 8-A 600 series  
LA8 or LE8 Line Printer

## **PREREQUISITE SOFTWARE:**

OS/8 Operating System, Version 3C or later

## **OPTIONAL SOFTWARE SUPPORTED:**

None

## **TRAINING CREDITS:**

None

**June 1977**

**DEC-08-XPDAL-E-D**

**SUPPORT CATEGORY:**

B — 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.

**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.

Source and/or listing options are only available after the purchase of at least one supported license and after a source license agreement is in effect.

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

- C = DECTape
- N = Cassette
- Y = Floppy Disk
- Z = No hardware dependency

*Standard Options*

- QF090 -A— Single-use license, binaries for OS/8 Operating System and OS/8 Industrial BASIC, documentation, support services (media: C, N)
- QF095 -A— Single use license, binaries for OS/8 Industrial BASIC, documentation, support services (media: C, N, Y)

*Source/Listing Options*

- QF095 -E— All sources (media: C)
- QF095 -F— Listings (media: Z)

*Update Options*

Users of Industrial BASIC, Version 1, whose specified Support Category warranty has expired may order under license the following software update at the then current charge for such update. The update is distributed in source or binary form on the appropriate medium and includes no installation or other services unless specifically stated otherwise.

- QF095 -H— Binaries, documentation (media: C, N)

**ADDITIONAL SERVICES:**

None