FOXBORO®

PSS 21H-4P1 B3

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I/A Series® Overview
Personal Workstation

The I/A Series system supports the use of Personal Workstations (PW's) for a wide variety of functions. The Foxboro Company provides Personal Workstation based solutions, which include qualified personal computer hardware and I/A Series software packages to match the intended use and capacity of the Personal Workstation.

These PW based solutions are:

- Personal Workstation for Operators and Engineers (PW-OE)
- Personal Workstation for Off-Line Configuration (PW-C)
- Personal Workstation for Fieldbus Interface (PW-FB)
- Personal Workstation for SINGLE STATION MICRO Controller Interface (PW-SSI)
- Personal Workstation for Small Nodebus Control System (PW-NB)

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Product Specifications

Personal Workstation for Operators and Engineers (PW-OE)

As a desk-top Personal Workstation, the PW-OE (Figure 1, formerly PW) performs the combined functions of an Application and Workstation Processor to provide for bulk storage, processing, and human interface on an I/A Series Node. Its principal use is for I/A Series System configuration and as a desk-top operator interface station.

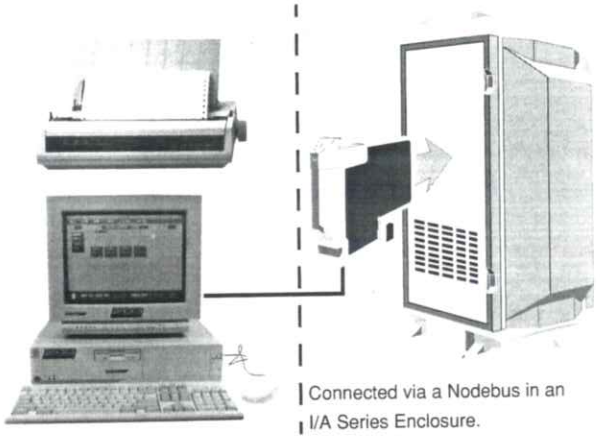

Figure 1. Personal Workstation for Operators and Engineers (PW-OE)

Personal Workstation for Off-Line Configuration (PW-C)

The Personal Workstation PW-C (Figure 2) is used in a stand-alone environment that allows configuration of I/A Series equipment, operational software packages, and displays.

The System Configurator specifies and documents the system hardware, software, network, and enclosures. The Control and I/O Configuration software lets an engineer configure continuous, sequential, and ladder control schemes for the Control Processor in an I/A Series system. The Display Builder and Display Configurator configure real-time displays for the Workstation Processor or Personal Workstation.

The configuration of supervisory functions is supported by the Historian and Spreadsheet software packages. An environment is provided for writing, compiling, and debugging C Language and FORTRAN 77 application programs. An image of the Control Processor software in the workstation allows checkout of most control strategies.

Figure 2. Personal Workstation for Off-Line Configuration (PW-C)

Personal Workstation for Fieldbus Interface (PW-FB)

The PW-FB (Figure 3) connected to the Fieldbus provides a low-cost system for applications with Fieldbus Modules (FBM's). Here the PW-FB functions as a Control Processor, Application Processor, and Workstation Processor simultaneously. It can perform data acquisition, as well as continuous, ladder logic, or sequential control in situations where high system availability is not required. Supervisory functions include the optional Spreadsheet and Historian software packages.

This configuration may also be used as the first step in a phased installation of a larger I/A Series system by later addition of other components to an I/A Series Node and alteration of the role of the Personal Workstation to become a PW-NB as described on the following page.

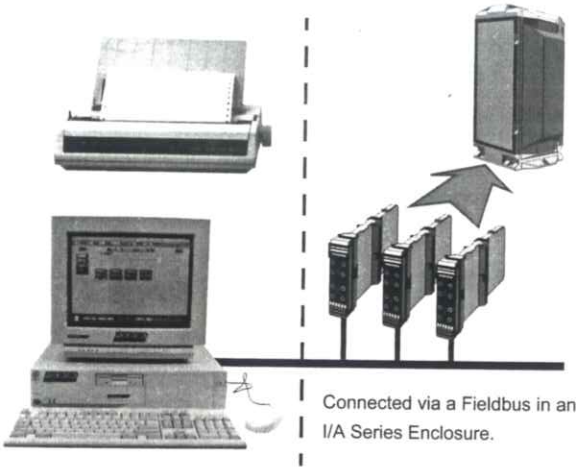

Figure 3. Personal Workstation for Fieldbus Interface (PW-FB)

Personal Workstation for SINGLE STATION MICRO Controller Interface (PW-SSI)

In the role of a central integrating workstation, the PW-SSI (Figure 4) serves as the information processor and human interface for a related set of up to thirty 760/761 SINGLE STATION MICRO Controllers. The PW-SSI performs as an Application Processor, Workstation Processor, and Instrument Interface. Supervisory level functions include the optional Spreadsheet and Historian, 760 Series Controller Configurator, and 761 Series Controller Configurator software packages.

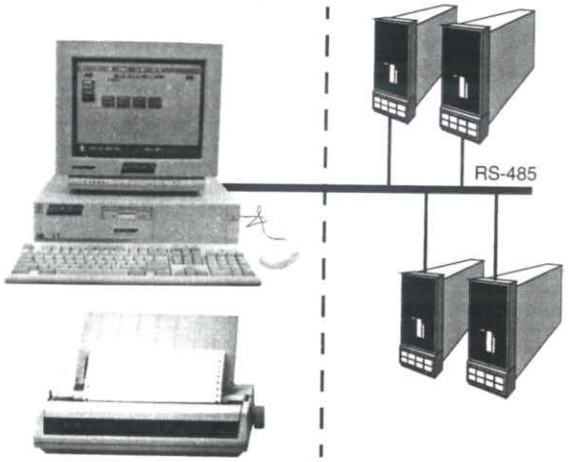

Figure 4. Personal Workstation for SINGLE STATION MICRO Controller Interface (PW-SSI)

Personal Workstation for Small Nodebus Control System (PW-NB)

On the migration path from the smallest PW system to the largest I/A Series system is the PW-hosted node, in which slave stations can be attached to provide small distributed control system capability. In this case the PW-NB serves as an Application Processor and a Workstation Processor (Figure 5).

The PW-NB can host any combination of supported nodebus devices. Nodebus devices supported include:

- Control Processor 10's
- Control Processor 30's
- Control Processor 40's
- Control Processor 30's with Panel Display Stations
- Tank Processor 10's
- Information Network Interface 15's
- Communications Processor 10
- Gateways
- Personal Workstations (PW-OE)

Workstation Processors and LAN Interfaces are not supported by PW-NB.

Supervisory level functions include optional Historian, Spreadsheet and other Foxboro application software packages.

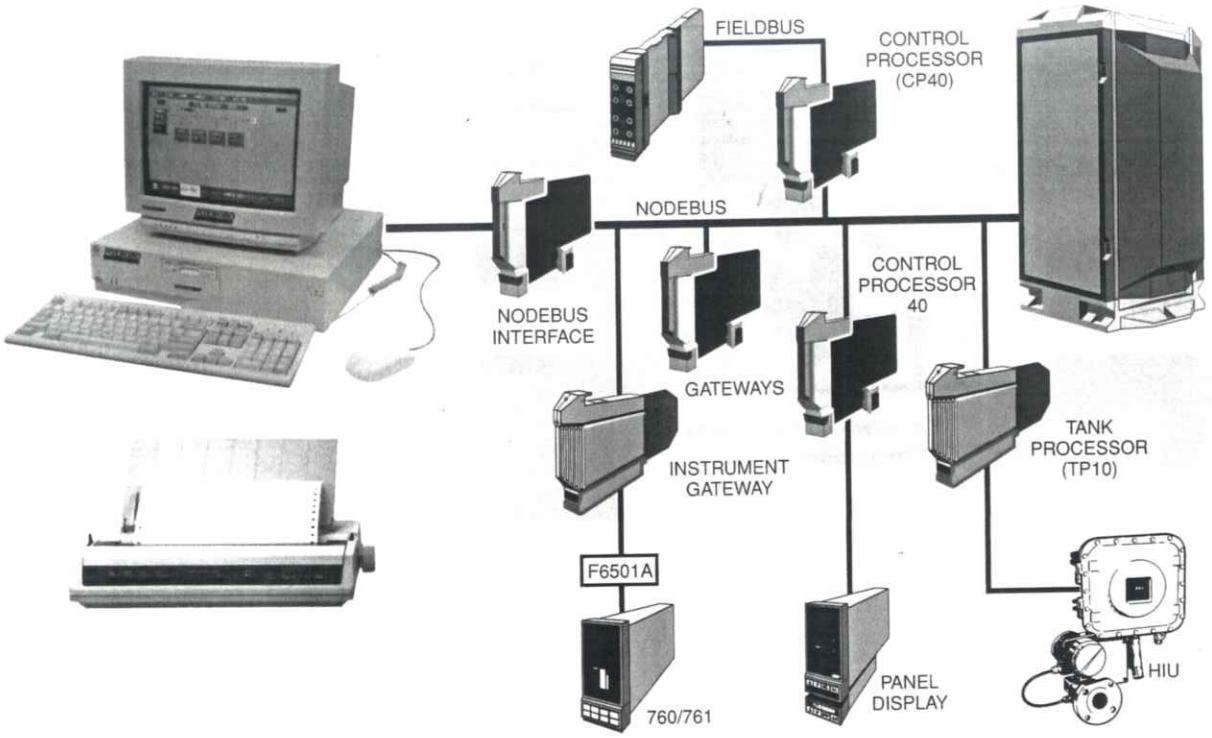

Figure 5. Personal Workstation for Small Nodebus Control Systems (PW-NB)

INTERFACES

Personal Workstations interface with I/A Series modules in a number of ways, depending on the configuration.

Nodebus Interface

An interface card is required to connect the PW systems to the Nodebus. The card is connected by an AUI (Access Unit Interface) cable (up to 45 m [150 ft]) which connects to a Nodebus interface module in an I/A Series enclosure. In this configuration (Figure 1), the PW system functions as a station on the Node. This interface is applicable for the PW-OE and PW-NB.

Fieldbus Interface

The PW-FB, as shown in Figure 3, interfaces directly to the fieldbus. The Fieldbus, optionally redundant, and Fieldbus Modules for I/O are connected to a Personal Workstation by a Fieldbus termination block cable which in turn plugs into a PW Fieldbus interface card mounted in the PW-FB.

RS-485 Interface

The PW-SSI (see Figure 4) interfaces to the 760/761 Series Controllers via a PW-SSI interface card in the Personal Workstation connected in daisy-chain fashion by twisted pair cable to the 760/761 Series Controllers.

FUNCTIONAL SPECIFICATIONS

Personal Workstation and Peripherals

FOXBORO PENTIUM
- Intel Pentium microprocessor
- 8 MB RAM
- Main processor board interfaces: VGA (video), parallel printer, serial mouse/trackball, floppy disk, serial printer
- 504 MB hard disk: IDE interface
- 1.44 MB 3.5-inch floppy disk
- 14-inch, 15-inch, 17-inch or 19-inch VGA monitor, colors
- Windows 95 keyboard, English language
- Annunciator and touchscreen NOT available with PW systems

POINTING DEVICE
Standard serial mouse, optional trackball, or optional Industrial trackball

PRINTER
Standard dot matrix printer 80 column, optional color dot matrix printer 132 column or color postscript printer

Refer to the following Product Specification Sheets for more information on each Personal Workstation:

PSS 21H-4P1 B4	Personal Workstation for Operators and Engineers (PW-OE)
PSS 21H-4P3 B4	Personal Workstation for Off-Line Configuration (PW-C)
PSS 21H-4P5 B4	Personal Workstation for Fieldbus Interface (PW-FB)
PSS 21H-4P7 B4	Personal Workstation for SINGLE STATION MICRO Controller Interface (PW-SSI)
PSS-21H-4P11 B4	Personal Workstation for Small Nodebus Control System (PW-NB)

SERVICE

A Maintenance Agreement is provided during the Standard Warranty period. Included with this agreement are telephone services and software revisions, when issued. Details of services may vary depending on geographic location. Refer to your Sales/Service Representative for further information.

TRAINING

"Introduction to I/A Series Small Systems" is a self-study training package designed to train plant or mill personnel in the operation and configuration of I/A Series Small Systems. This package is suitable for both PW-NB and PW-FB. It consists of a 4-1/2 hour video program, a training manual, and software which runs on PW-NB, PW-FB, PW-C, or on I/A Series Systems. The material is presented in 12 modules which can be used to train process operators, technicians, and engineering personnel. NOTE: PW-NB systems must include a control processor to perform the training.

- Exploring Personal Workstation Hardware
- I/A Series Software Terms and Concepts
- Operation of the I/A Personal Workstation
- Controlling a Process with the I/A Series Personal Workstation
- Exploring the Personal Workstation's Configuration Software
- Configuring the Process Control Subsystem
- Introduction to Group Display Configuration
- Introduction to File Utilities
- Introduction to Environment Configuration
- Introduction to Creating Process Displays
- Introduction to Historian Configuration and Report Writing
- Introduction to the I/A Series Spreadsheets

NOTE: The self-study training packages and additional training manuals must be purchased separately.

Part Numbers: B0193EW - Complete Package
B0193EY - Additional Manual

For specifications on the I/A Series System and Printers, refer to the applicable Foxboro Product Specification Sheet (PSS).

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