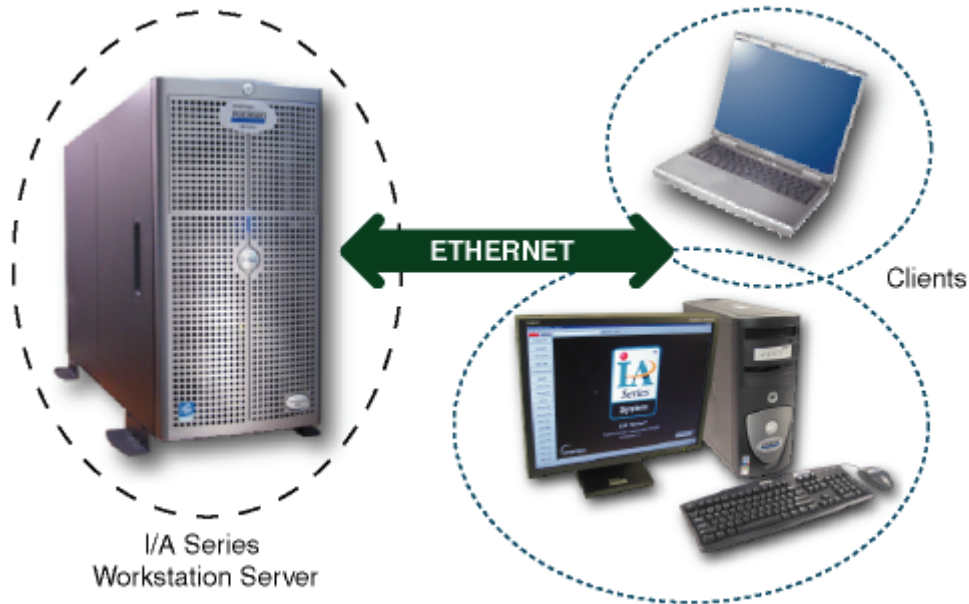


I/A Series® Software

PSS 21S-1B10 B3

Workstation Server for Windows® Server 2003 Software Overview Microsoft Windows Server 2003 Operating System



The I/A Series® Workstation Server for Windows® Server 2003 is a server-class processor running the Microsoft Windows Server 2003, Standard Edition operating system.

FEATURES

The I/A Series Workstation Server offers:

- ▶ A premium level system with high-end processor speed, up to 4 GB of memory, optional internal Redundant Array of Independent Disks (RAID), up to eight internal SCSI hard drives, and redundant hot-swap power supplies
- ▶ The ability to host control stations and/or support data acquisition and monitoring functions
- ▶ Serves as an I/A Series application platform and a human interface station in an Ethernet-based system
- ▶ The ability to support viewing I/A Series applications from up to 30 remote client stations simultaneously over local area networks
- ▶ Web-browser or Terminal Server Client window access to applications running on the I/A Series Workstation Server from remote client stations
- ▶ Remote client stations to an I/A Series Workstation Server may be other I/A Series workstations or third-party PCs running a Windows based operating system
- ▶ An enhanced printscreen utility that incorporates the ability to swap black and white colors, automatically send screen captures to a printer or file, place date and time on each printout and many other useful features.

OVERVIEW

The I/A Series Workstation Server supports remote engineering and operations capability via access to I/A Series displays for the purpose of monitoring and controlling your process. The I/A Series Workstation Server supports remote invocation of the following I/A Series applications:

- ▶ FoxView™ software
- ▶ Alarm Manager
- ▶ FoxDraw™ software
- ▶ Integrated Control Configurator (ICC)
- ▶ I/A Series Configuration Component (IACC)
- ▶ System Management Display Handler (SMDH).

ICC and SMDH are single instance, meaning there can be only one instance running on the I/A Series Workstation Server at a time, including remote sessions. Other applications are multi-instance and may be invoked from multiple client sessions simultaneously.

One such application that can be invoked concurrently from more than one client session is IACC. However, because IACC utilizes a client/server architecture, viewing IACC screens remotely from a P91 server acting as an IACC server requires that the IACC server software be installed on the I/A Series Workstation Server and the IACC client software be installed on the remote workstation.

Security of remote client access is user-configurable. The remote sessions can range from being view-only to having full operator or engineering functionality, providing the flexibility and control over what a remote user can do.

The I/A Series Workstation Server has full process engineer and operator functionality to enable process operation, configuration, and monitoring. Refer to Table 1 for a list of applications supported by the I/A Series Workstation Server.

NOTE

Remote client workstations supported by I/A Series Workstation Servers should not be used as replacements for dedicated I/A Series workstations because of single-point-of-failure and performance considerations. When remote client stations are totally dependent upon applications running in the I/A Series Workstation Server, a failure or shutdown of the server will affect all these remote stations as well. Also, due to the variability of the demand that can be placed on the server by remote client sessions, the performance of the applications running on the I/A Series Workstation Server may not be as deterministic as on a dedicated single-user workstation.

I/A SERIES WORKSTATION SERVER SOFTWARE/LICENSES

The I/A Series Workstation Server requires the following sets of licenses.

The *operating system licenses* include:

- ▶ Microsoft Windows Server 2003 Standard Edition license
- ▶ Microsoft Windows Server 2003 Client Access Licenses (CALs)
- ▶ Microsoft Terminal Services Client Access Licenses (TS CALs)

When you purchase an I/A Series Workstation Server, it comes with one Microsoft Windows Server 2003 Standard Edition license and five client access licenses (CALs). It does not include any terminal services client access licenses (TS CALs); you must purchase the TS CALs separately. Currently a 5 pack of Terminal Server CALs for the Windows Server 2003 operating system (J0201CF) is available from www.buyautomation.com. Refer to the Buy

Automation store for an up-to-date list of available products. Each I/A Series Workstation Server can support up to 30 remote clients simultaneously.

The *I/A Series software license* required is:

- ▶ S10 I/A Series Workstation software license, configured with one display manager per remote user.

I/A Series Workstation Server Operating System

The I/A Series Workstation Server uses Microsoft's Windows Server 2003 Standard Edition operating system with Service Pack 1 to allow you to remotely view instances of the FoxView application. You should not run or install applications such as Microsoft Exchange®, SQL Server, or SAP on the I/A Series Workstation Server due to their impact on performance.

Remote Client Stations

Each I/A Series Workstation Server can support up to 30 simultaneous remote client sessions.

Remote client stations can have access to more than one I/A Series Workstation Server, even at the same time over Ethernet. Refer to Figure 1. Any application that can be viewed on the local monitor attached to the I/A Series Workstation Server can also be viewed at a remote client station.

There are two ways to access these applications remotely. One way is using Internet Explorer® 6.x browser or later with ActiveX® software on the remote client station. In this case, no additional software needs to be installed on the remote client station.

The other is to use Remote Desktop Connection software (formerly known as the Terminal Services client) on the remote platform. The Remote Desktop Connection software is already installed on every Windows XP® Professional and Windows Server 2003 platform. For other client devices running the

Microsoft Windows 2000® operating system or the Microsoft Windows NT® 4.0 operating system, a Terminal Services Client MSI Setup package is provided as part of the Windows Server 2003 operating system. By sharing a drive on the server, remote clients can access this setup program and install the Remote Desktop Connection software from the shared drive.

The latest version of the Remote Desktop Connection software can also be downloaded from the Internet. The software downloaded in this manner can be directly installed on the client stations.

A FoxView display manager license is required for each concurrently running instance of FoxView software.

I/A Series Software

The I/A Series Workstation Server can be purchased with any of the following, based on the model-coded license selections:

- ▶ Full operator functionality via FoxView software
- ▶ Full engineering workstation functionality
- ▶ Hosting support
- ▶ FoxAPI™ software.

The I/A Series Workstation Server supports the following categories of application software:

- ▶ Standard Application Packages
- ▶ Optional Application Packages
- ▶ Additional Supported Application Packages
- ▶ User Programming Support.

Standard Application Packages

The S10 license provides the following standard offerings for use on the I/A Series Workstation Server. These application packages are bundled with I/A Series software or provided on a separate CD-ROM. Refer to Table 1.

- ▶ Alarm Manager provides notification and response capabilities, such as current alarm displays and user configured alarm displays.
- ▶ Field Device System Integrator (FDSI) Configurator allows you to configure FDSI FBMs to communicate with field devices.
- ▶ FoxPanels™ software provides notification of and the responses to alarm conditions.
- ▶ ICC provides for the configuration of control blocks and I/A Series control schemes.
- ▶ Operator Action Journal records specific operator actions taken during process control operations.
- ▶ PLB View allows you to view the state of the ladder logic associated with a programmable logic block (PLB) and PLB Monitor allows you to monitor the ladder logic and force contacts and coils on or off.
- ▶ Process Summary Reports provide reports on compounds and blocks in control stations.
- ▶ System Definition identifies the I/A Series system configuration, including hardware components, networking components, and system software.
- ▶ System Management Display Handler (SMDH) monitors the health of the equipment and allows responses to fault conditions.
- ▶ Computer Aided Engineering (FoxCAE™) software performs database engineering, automatic loop documentation, and backdocumentation.
- ▶ FoxDraw software provides drawing functions organized as a set of tools used to construct and edit objects.
- ▶ FoxSelect™ software provides the user interface for accessing compounds and blocks in the control database and accessing Block Detail displays.
- ▶ FoxView software provides access to block detail displays, user-configured displays, select displays, and trend displays.
- ▶ I/A Series Configuration Component (IACC) allows you to develop control strategies for an I/A Series system, including defining hardware and software, configuring control blocks and displays, and downloading the configurations to workstations and control processors.

NOTE

Because IACC utilizes a client/server architecture, viewing IACC screens remotely requires that IACC server software be installed on the I/A Series Workstation Server acting as the IACC server and IACC client software be installed on the remote workstation acting as the IACC client.

- ▶ Sequential Function Chart (SFC) software allows you to configure and display I/A Series Sequence Blocks (the dependent, independent, and exception sequence blocks) using Sequential Function Charts (SFC) and Structured Text (ST).

Optional Application Packages

The following application software can be selected via the S10 licensing options for use on the I/A Series Workstation Server as noted in Table 1.

Additional Supported Application Packages

Many optional software packages are supported by I/A Series Workstation Server. Note that additional software licenses may apply to some applications for remote client access. Frequently used options include, but are not limited to:

- ▶ AIM*DataLink™ software provides easy access to real-time data objects and historical information from Windows based applications.
- ▶ AIM*Explorer™ software is a tool for visualizing and exploring real-time and historical process data served from I/A Series systems and other data servers.
- ▶ AIM*Historian™ software provides capability for collection, storage, and retrieval of historical process information.
- ▶ AIM*SPC™ (statistical process control) software provides on-line displays of charts and other SPC tools for process variables.
- ▶ Extended Frame Services (EFS) provides field device tool (FDT) compliant services to acquire instrument maintenance information for plant asset management software such as Avantis®.PRO software.

NOTE

Some applications that are installed on stations running the Microsoft Windows XP operating system, Windows 2000 operating system, or Windows NT 4.0 operating system may not run as expected on an I/A Series Workstation Server because the server utilizes Windows Server 2003 with Service Pack 1 as its operating system. Microsoft has published guidelines for optimizing applications for this environment. If there are any questions or problems regarding a particular application, it is recommended that you contact the supplier of that application.

User Programming Support

Powerful support is provided for interfacing user programs with I/A Series control systems:

- ▶ Foxboro® Application Program Interface (FoxAPI™ software) provides a function call interface that provides connection-based read or write access to I/A Series data objects. FoxAPI software is an optional package selectable via the S10 licensing options. Refer to Table 1.
- ▶ AIM*API™ software allows read/write access to AIM*AT® objects as well as access to I/A Series files, and Compound Summary Access (CSA) information. AIM*API software is separately available. Refer to Table 1.

There are some differences between the Windows Server 2003 operating system and previously supported operating systems (Windows XP operating system, Windows 2000 operating system, or Windows NT 4.0 operating system). For most applications, no programming changes are required to run in the Windows Server 2003 environment. However, programmers are encouraged to consult the Microsoft web site to understand how to optimize applications for the Windows Server 2003 environment.

Table 1. Standard, Optional, and Supported Packages for I/A Series Workstation Server

Standard Application Packages	Optional Application Packages	Additional Supported Application Packages
The S10 license provides the following standard offerings for use on the I/A Series Workstation Server:	The following optional application packages are selected via the S10 licensing options:	The following optional application packages are separately available and are qualified for use on the I/A Series Workstation Server:
▶ Alarm Manager	▶ FoxAPI Software	▶ AIM*API Software
▶ Field Device System Integrator (FDSI) Configurator	▶ FoxCAE Software	▶ AIM*DataLink Software
▶ FoxPanels Software	▶ FoxDraw Software	▶ AIM*Explorer Software
▶ I/A Series Electronic Documentation	▶ FoxSelect Software	▶ AIM*Historian Software
▶ Integrated Control Configurator (ICC)	▶ FoxView Software	▶ AIM*SPC Software
▶ Operator Action Journal	▶ I/A Series Configuration Component (IACC) Software	▶ Extended Frame Services (EFS) Software
▶ PLB View and Monitor	▶ Sequential Function Chart (SFC) Software	
▶ Process Summary Report		
▶ System Definition		
▶ System Management Display Handler (SMDH)		

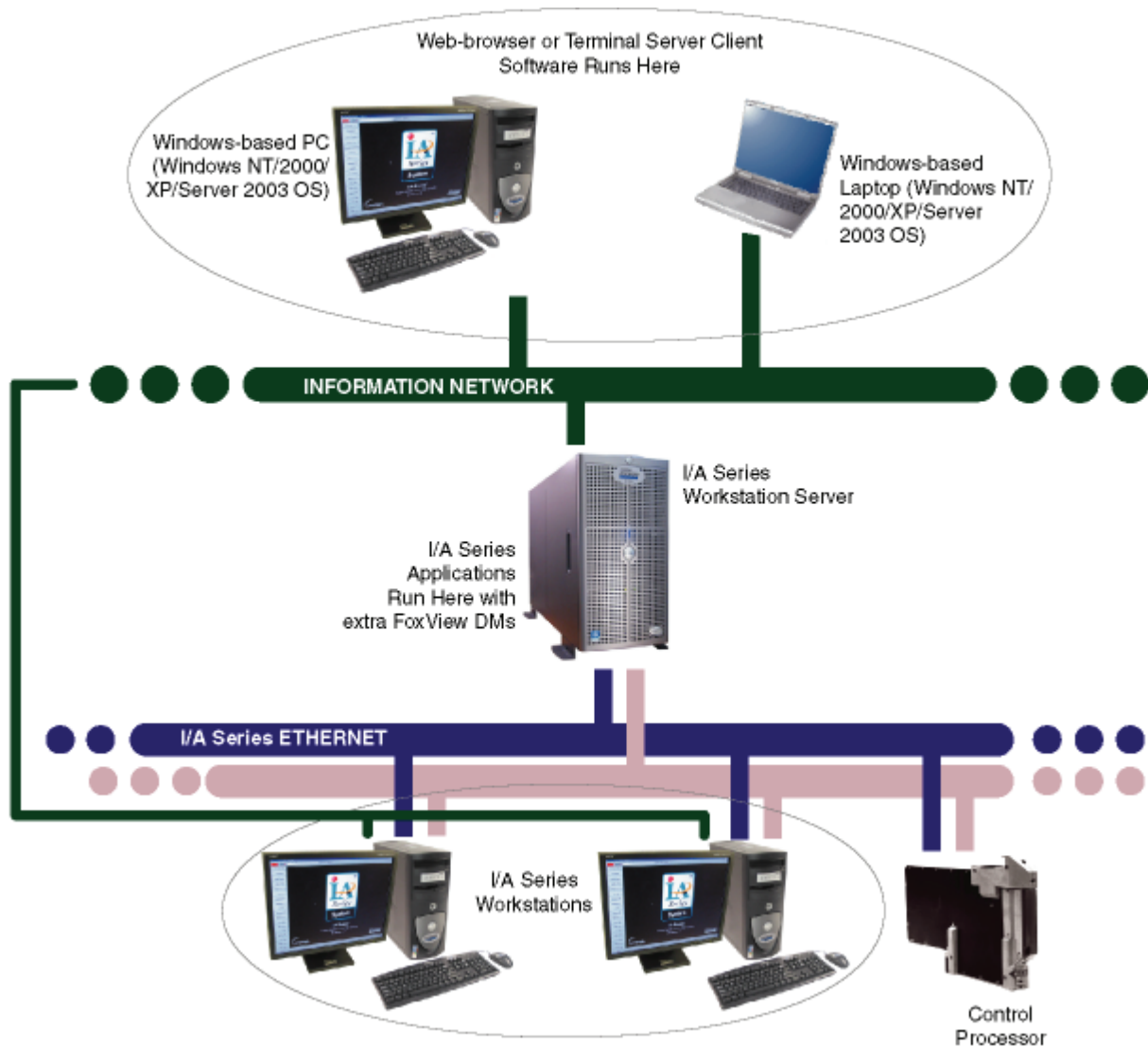


Figure 1. I/A Series Workstation Server Configuration on an I/A Series Ethernet Network

I/A Series® workstation software is supported only on the workstation hardware and configurations shipped from Foxboro® I/A Series system manufacturing. I/A Series system software undergoes rigorous qualification testing with specific software and hardware configurations to ensure it meets the demanding requirements for process automation. Any use of non-supported computers for I/A Series workstation software is not covered by our standard warrantee or support agreements unless specifically addressed and documented. Exception to this policy includes support for some I/A Series engineering tools (i.e. IACC, FoxCAE™ tool, etc). Details on what platforms are approved for use for these tools are documented in their respective Product Specification Sheets.



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