FactoryTalk View Site Edition

Installation Guide
Important user information

Read this document and the documents listed in the additional resources section about installation, configuration, and operation of this equipment before you install, configure, operate, or maintain this product. Users are required to familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.

Activities including installation, adjustments, putting into service, use, assembly, disassembly, and maintenance are required to be carried out by suitably trained personnel in accordance with applicable code of practice. If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

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**WARNING:** Identifies information about practices or circumstances that can cause an explosion in a hazardous environment, which may lead to personal injury or death, property damage, or economic loss.

**ATTENTION:** Identifies information about practices or circumstances that can lead to personal injury or death, property damage, or economic loss. Attentions help you identify a hazard, avoid a hazard, and recognize the consequence.

**Important:** Identifies information that is critical for successful application and understanding of the product.

Labels may also be on or inside the equipment to provide specific precautions.

**SHOCK HAZARD:** Labels may be on or inside the equipment, for example, a drive or motor, to alert people that dangerous voltage may be present.

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**ARC FLASH HAZARD:** Labels may be on or inside the equipment, for example, a motor control center, to alert people to potential Arc Flash. Arc Flash will cause severe injury or death. Wear proper Personal Protective Equipment (PPE). Follow ALL Regulatory requirements for safe work practices and for Personal Protective Equipment (PPE).

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Preface

What’s in this Installation Guide?

This manual describes the FactoryTalk View Product and System, the tasks to be performed on a system before installation, the detailed installation steps, how to use FactoryTalk Activation to license the installed product, tasks for deploying applications, and how to upgrade an existing system.

The contents of this Installation and Deployment guide appear in the order you would use during installation on new or existing systems:

- FactoryTalk View basics describes the software components and layout of the system (Chapter 1).
- Hardware, operating system and domain information identifies requirements for the computers and operating systems (Chapter 2).
- Preparing for installation gives you the information you need to get your computer systems ready for a new installation or an upgrade (Chapter 3).
- Installation procedures walk you through the screens you will see during a complete installation (Chapter 4).
- Activating the software is required to get software license information onto all the computers in your system (Chapter 5).
- Deploying new applications covers several deployment types you may need (Chapter 6, 7, and 8).
- Upgrading existing applications if you already have an installed HMI application and are upgrading to the latest version of FactoryTalk View (Chapter 9).

About the FactoryTalk View documentation

In addition to FactoryTalk View Installation Guide, the FactoryTalk View documentation set includes:


  The User’s Guide is available in PDF format, from the Help menu in FactoryTalk View Studio, on the disc containing the Setup Wizard, and from the Rockwell Automation Literature Library.

- **Release Notes**. Read the Release Notes before you begin installing or working with FactoryTalk View and supporting software.

  Release Notes for FactoryTalk View SE, RSLogix Enterprise, and RSLogix Classic are available from the FactoryTalk View Installation DVD.

  Release Notes for the FactoryTalk Services Platform are available from the Contents page in the FactoryTalk Help. To open the Help, select Start >
All Programs > Rockwell Software > FactoryTalk Tools > FactoryTalk Help.

During the installation, you can also open the release notes of the selected product that contain the latest information about updates and program features.

- **Help.** Procedures and reference information are available from the Help menu in FactoryTalk View Studio, and from editors and dialog boxes used to develop FactoryTalk View SE applications.

## What’s in this manual

The Installation Guide is available in PDF format from the FactoryTalk View Installation DVD, from the **Help** menu in FactoryTalk View Studio, and from the Rockwell Automation Literature Library.

**Tip:** In the Literature Library, to find the current version of the Installation Guide and the User’s Guide, search for publication numbers containing the string `VIEWSE`.

Chapters in this manual describe how to:

- Set up the computers that will run FactoryTalk View SE.
- Install FactoryTalk View SE and supporting software.
- Activate the FactoryTalk View SE software.
- Deploy FactoryTalk View SE network and local applications.
- Upgrade FactoryTalk View SE components.

Each chapter includes a task check list, which you can use to create customized procedures suited to the needs of your application.

## Other documents

<table>
<thead>
<tr>
<th>Document</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FactoryTalk Alarms and Events System</td>
<td>Describes the tasks to install, configure, and use FactoryTalk Alarms and Events services as part of a FactoryTalk-enabled automation system.</td>
</tr>
<tr>
<td>Configuration Guide, publication FTAE-RM-001</td>
<td></td>
</tr>
<tr>
<td>publication FTSEC-QS001</td>
<td></td>
</tr>
</tbody>
</table>

## Open FactoryTalk View manuals


To open the manuals:

1. Open FactoryTalk View Studio.
2. From the Help menu, select Online Books, and then select the manual you want to open.

**Tip:** During installation, Adobe Reader may be installed on the computer so that you can view online manuals. For information about using Adobe Reader, see the product documentation.

--

**Contact Rockwell Automation Technical Support**

If you cannot find the answer to your question in the documentation or on the Internet, contact Rockwell Automation Technical Support, using any of these methods:

- Telephone: 1-440-646-3434
- Online: [http://support.rockwellautomation.com](http://support.rockwellautomation.com)

Support staff are available Monday to Friday from 8:00 a.m. to 5:00 p.m. local time (North America only), except on statutory holidays.

**When you call Rockwell Automation Technical Support**

When you call, it is recommended that you be at your computer and ready to provide the following information:

- The product’s Serial Number and Product Key, which are printed on the Activation Certificate enclosed with the product software DVD.
- The FactoryTalk View product version number.
- FactoryTalk Services Platform version number.
- The connectivity (RSLinx Enterprise or RSLinx Classic) version number.
- The type of hardware you are using.
- The names of other Rockwell Automation products installed on the computer.
- The exact wording of any messages shown on the computer.
- A description of what happened and what you were doing when the problem occurred.
- A description of how you tried to solve the problem.

If you are running a FactoryTalk View SE network distributed application, also note:

- How many computers are participating in the network application.
- Whether computers on the network are connected using a Windows domain controller or a workgroup.
- Which FactoryTalk View SE components are installed on participating computers.
• Which computers are running servers (the Network Directory server, HMI servers, data servers, or tag alarm and event servers), and whether the servers are set up with redundancy.

• Which computers are running clients (FactoryTalk View SE Client or FactoryTalk View Studio).

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This document is current as of the time of release of the product; however, the accompanying software may have changed since the release. Rockwell Automation, Inc. reserves the right to change any information contained in this document or the software at any time without prior notice. It is your responsibility to obtain the most current information available from Rockwell when installing or using this product.

**Environmental compliance**


**Contact Rockwell Automation**

Customer Support Telephone — 1.440.646.3434

Online Support — http://www.rockwellautomation.com/support/
FactoryTalk View basics

FactoryTalk View, including FactoryTalk View SE (Site Edition) and FactoryTalk View ME (Machine Edition), are HMI (human-machine interface) software products designed with a common look, feel, and navigation to help speed HMI application development and training time.

Supporting the Rockwell Automation Integrated Architecture, FactoryTalk View is part of the scalable and unified suite of monitoring and control solutions designed to span stand-alone machine-level applications up through supervisory-level HMI applications across a network. This suite offers you a common development environment, application reuse, and architecture so you can increase productivity, reduce operation costs, and improve quality.

FactoryTalk View includes the PC-based development tool FactoryTalk View Studio as well as FactoryTalk View ME and FactoryTalk View SE.

What is FactoryTalk View SE?

FactoryTalk View SE is an integrated software package for developing and running HMI applications that can involve multiple users, clients, and servers, distributed over a network.

FactoryTalk View SE provides all the tools you need to create powerful, dependable process monitoring and supervisory control applications.

A FactoryTalk View SE System is more than the HMI Server and Clients. It also includes FactoryTalk Services Platform and Data Communication products such as RSLinx Enterprise and RSLinx Classic.

About the architecture of your FactoryTalk View system

A network distributed FactoryTalk View SE system consists of several components as shown below.
This example of a distributed system includes a FactoryTalk Directory Server, FactoryTalk View SE Server and Client, RSLinx Enterprise Data Server, and FactoryTalk View Studio for application development and configuration.

**FactoryTalk View Studio Enterprise**

FactoryTalk View Studio Enterprise is the configuration software for developing and testing FactoryTalk View SE network distributed, network station, local station, and FactoryTalk View ME applications.

FactoryTalk View Studio contains editors for creating complete applications, and includes client and server software for testing the applications you create. Use the editors to create applications that are as simple or as complex as you need.

**FactoryTalk View SE Server**

FactoryTalk View SE Server, also called the HMI server, stores HMI project components (for example, graphic displays) and supplies them to clients. The server also contains a database of tags, and performs alarm detection and historical data logging.
The FactoryTalk View SE Server has no user interface. Once installed, it runs as a set of *headless* Windows services that supply information to clients as they request it.

### FactoryTalk View SE Client

FactoryTalk View SE Client is software for viewing and interacting with FactoryTalk View SE local station, network station, and network distributed applications at run time.

Use the FactoryTalk View SE Client Wizard to create client configuration files that can be deployed to client host computers. For details, see the FactoryTalk View SE Client Help.

### FactoryTalk View SE Station

FactoryTalk View SE Station is a supervisory HMI software package for enterprise solutions. SE Station is a single-computer HMI that can be operated in either a Local or a Network FactoryTalk Directory. There are key differences between View SE Distributed and View SE Station:

- View SE Distributed can share HMI screens and data with multiple clients.
- View SE Station does not allow sharing of HMI screens or data to other View SE Stations.

A Network Station deployment (below) can include several HMI stations using a single Directory server and a single RSLinx communication server. While each HMI station can access the same controller data, through the shared RSLinx Enterprise server, and the same Directory resources through the shared Directory server, they can only access their own HMI data such as graphics, macros, and datalogs.
A Local Station FactoryTalk View SE system (below) can include several HMI computers, each with its own FactoryTalk Directory server and data server connection to the controllers.

**FactoryTalk ViewPoint**

FactoryTalk ViewPoint is an add-on to FactoryTalk View that provides for a fully scalable, fully animated, read-and-write view of existing Site Edition (SE) and Machine Edition (ME) web applications from a web browser.

A web application consists of graphic displays selected from the FactoryTalk View application, converted for viewing in a web browser, and then published to a FactoryTalk ViewPoint Server (also called the web server).

- For Site Edition applications, the FactoryTalk ViewPoint Server runs on a desktop or server computer.
- For Machine Edition applications, a PanelView™ Plus or PanelView Plus Pro operator terminal functions as the server.

**Stand-alone RSLinx Enterprise Server**

RSLinx Enterprise is a FactoryTalk Live Data server and can be enabled as a FactoryTalk Alarms and Events server. Your applications use RSLinx Enterprise to communicate with devices such as controllers and I/O scanners. This enables you to see values, such as sensor readings and other controller data from your plant floor devices, on your desktop computer or dedicated PanelView Plus terminal.

**Stand-alone FactoryTalk Directory Server**

FactoryTalk Directory provides a central lookup service for a FactoryTalk system so all definitions do not have to exist in a single physical project file. References saved by FactoryTalk Directory are used by FactoryTalk-enabled products and FactoryTalk services to locate definitions when they are needed. It allows clients to locate key configuration information such as system organization, server locations, and policy information. FactoryTalk Directory provides a common address or phone book of factory resources that are shared among FactoryTalk-enabled applications in a distributed system.
FactoryTalk Services Platform provides a set of common services (such as diagnostic messages, health monitoring services, and access to real-time data) for all the FactoryTalk products and applications used in a control system.

FactoryTalk Services Platform is installed automatically with any FactoryTalk-enabled product.

FactoryTalk Administration Console is a stand-alone tool for developing, managing, and securing multiple FactoryTalk View applications.

To open the Administration Console, select Start > All Programs > Rockwell Software > FactoryTalk Administration Console.

The FactoryTalk Directory centralizes access to system resources and names for all FactoryTalk products and components participating in an automated control system.


FactoryTalk Alarms and Events, which installs behind the scenes during FactoryTalk View SE installation, provides system-wide alarm monitoring and control centralized at the FactoryTalk Directory.

To distribute device- and tag-based alarms in a FactoryTalk View SE application, you can set up FactoryTalk Alarms and Events servers in the application.

FactoryTalk Security centralizes user authentication and authorization at the FactoryTalk Directory.

FactoryTalk Live Data manages connections between FactoryTalk products and data servers.

FactoryTalk Diagnostics collects and provides access to activity, status, warning, and error messages generated throughout a FactoryTalk system.

FactoryTalk Activation services provide a secure, software-based system for activating Rockwell Software products and managing software activation files.

How you plan to obtain data for an application will determine which communications software you install.

You can use the RSLinx Enterprise or RSLinx Classic software shipped with FactoryTalk View SE, or use other software and devices that support OPC (OLE for Process Control) communications.
RSLinx Enterprise

RSLinx Enterprise is a communication server built around FactoryTalk technology to assist in developing and running your FactoryTalk View SE applications.

For communications with Allen-Bradley local and remote devices, particularly with Logix5000 controllers, RSLinx Enterprise is the recommended data communications software for FactoryTalk View applications.

However, RSLinx Enterprise does not allow you to create alias topic shortcuts, or to perform online tasks such as uploading and downloading RSLogix 5000 files. If you need these capabilities, you may use RSLinx Classic as your data communications server instead.

RSLinx Classic

RSLinx Classic is software that provides communications to a wide range of devices, such as Logix5000 processors. RSLinx Classic is an OPC Data Access v2.05a-compliant data server that can serve FactoryTalk Live Data tags from an HMI Tag database or RSLinx Enterprise. RSLinx Classic is available for personal computers only.

For example, install and use RSLinx Classic to serve data through DH+ (Data Highway +) networks, to support complex bridging and routing, and to support unsolicited messaging from a controller to RSLinx.

RSLinx Classic also allows you to create alias topic shortcuts, and to perform online tasks such as uploading and downloading RSLogix 5000 files.

Installation DVD

The FactoryTalk View DVD provides all the software you need to develop and run local applications confined to a single computer, or distributed control systems that involve several computers, connected over a network.

Depending on needs, the architecture of a FactoryTalk View distributed application can involve multiple clients and servers that represent different parts of your plant or process. To accommodate those requirements, these FactoryTalk View programs are included in this Setup Wizard:

- Studio Enterprise
- Site Edition Server
- Site Edition Client
- Site Edition Station
- FactoryTalk ViewPoint SE
- Stand-alone RSLinx Enterprise Server
• Stand-alone FactoryTalk Directory Server

Three other applications can also be installed from this Setup Wizard for FactoryTalk View ME applications:

• Studio for Machine Edition
• Machine Edition Station for Windows
• Stand-alone ME Transfer Utility
Chapter 2

Hardware, operating system, and domain information

This chapter introduces computer and Microsoft Windows support information for a FactoryTalk View SE system, including:

- Review computer hardware requirements on page 23
- Review operating system requirements on page 24
- Set up Windows domain or workgroup on page 26
- Set up computers with names to be used in production on page 28

In a network application, it is possible for a single server computer that meets the listed hardware requirements to host all of the following components:

- One FactoryTalk View SE Server
- One RSLinx Enterprise data server (which can also be set up as FactoryTalk Alarms and Events device-based alarm server)
- One RSLinx Classic OPC-DA server (or some other OPC data server)
- One FactoryTalk Alarm and Event Tag based alarm Server
- The FactoryTalk Network Directory

However, running more than one HMI server on a single computer is not recommended. If you plan to deploy a network distributed application that uses more than two servers (or two pairs of redundant servers) and 20 clients, it is recommended that you contact your local Rockwell Automation Sales office for architectural assistance. For information about setting up redundant FactoryTalk View SE Servers, see Chapter 14, Setting up FactoryTalk system availability in the FactoryTalk View User’s Guide VIEWSE-UM006.

The computer hardware you choose to install and operate your FactoryTalk View SE System should be adequately sized for the demands of each component. These specifications are based on the hardware that the FactoryTalk View product and its supported operating systems require.

Typically, application servers such as FactoryTalk View SE Server, FactoryTalk Alarms and Events, and RSLinx Enterprise will need to be sized with faster CPUs.
and more RAM than operator or engineering workstations. The greater the demand, the more powerful a system you need.

You should also specify a hard drive that has enough disk space to provide virtual memory that is at least twice the size of the physical RAM.

For FactoryTalk View software upgrades in this release, we recommend upgrading your hardware to these levels.

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>CPU</th>
<th>RAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator Workstation</td>
<td>FactoryTalk View SE Client or FactoryTalk View SE Station</td>
<td>Intel Core 2 Duo or greater</td>
<td>2 GB or more</td>
</tr>
<tr>
<td>Engineering Workstation</td>
<td>FactoryTalk View Studio Enterprise RSLinx Classic RSLinx Enterprise Studio 5000</td>
<td>Intel Core 2 Duo or greater</td>
<td>4 GB or more</td>
</tr>
<tr>
<td>Application Server</td>
<td>FactoryTalk View SE Server FactoryTalk View Studio Enterprise FactoryTalk Alarms &amp; Events Tag Based Server RSLinx Enterprise Data Server with FactoryTalk Alarms and Events enabled</td>
<td>Smaller systems: Intel Core 2 Duo or greater</td>
<td>2 GB or more</td>
</tr>
<tr>
<td></td>
<td>Medium to larger systems: Quad core Intel Xeon family or greater</td>
<td></td>
<td>4 GB or more</td>
</tr>
</tbody>
</table>

**Note:** Do not run FactoryTalk Alarms and Events servers (Rockwell Automation Device Server or Tag Alarm and Event Server) on the computers that meet only minimum server requirements.

### Review operating system requirements

The choices you make will depend in part on whether the computer is to host an application client or server. You might choose to run operator or engineering workstations in a Windows Server operating system, but that is not required.

Recommended specifications for application servers are not as flexible, because server computers are more likely to host critical components and to handle more of the processing load in a FactoryTalk View SE application.

FactoryTalk View SE is tested on operating systems installed from original Microsoft media only. FactoryTalk View SE runs on either the 32-bit or 64-bit versions of the following Windows operating systems:

- Windows 10 Enterprise*
- Windows 10 Professional*
- Windows 10 IoT Enterprise 2016 Long Term Servicing Branch (LTSB) Embedded**
- Windows 8.1 Enterprise
• Windows 8.1 Professional
• Windows Embedded 8.1 Industry Pro
• Windows 8 Enterprise
• Windows 8 Professional
• Windows 7 Ultimate with Service Pack 1
• Windows 7 Enterprise with Service Pack 1
• Windows 7 Professional with Service Pack 1
• Windows 7 Embedded Standard with Service Pack 1^ 
• Windows 7 Embedded Standard with Service Pack 1
• Windows Server 2012 Standard
• Windows Server 2012 Datacenter
• Windows Server 2012 R2 Standard
• Windows Server 2012 R2 Datacenter
• Windows Server 2008 R2 Standard with Service Pack 1
• Windows Server 2008 R2 Enterprise with Service Pack 1

* For more information about the Windows 10 operating system support, see Answer ID 964391 in the Rockwell Automation Knowledgebase.

** This operating system is supported with the Allen-Bradley® 61xx family of industrial computers and CompactLogix™ 5480 family of controllers.

^ For more information about the Windows 7 Embedded Standard with Service Pack 1 operating system support, see Answer ID 619825 in the Rockwell Automation Knowledgebase.

For computers hosting application servers (HMI servers, data servers, or Tag Alarm and Event Servers), operating system requirements depend on whether the server will support more or fewer than 10 client connections.

A client can be any of FactoryTalk View SE Client, FactoryTalk View Studio, the FactoryTalk View SE Administration Console, a FactoryTalk Transaction Manager connector, or another FactoryTalk View SE Server.

For application servers that support:

• More than 10 client connections, the recommended operating systems (with the appropriate number of CAL (client access licenses) installed)
Chapter 2

Hardware, operating system, and domain information

- Windows Server 2012 R2 Standard (64-bit)
- Windows Server 2012 R2 Datacenter (64-bit)
- Windows Server 2012 Standard (64-bit)
- Windows Server 2012 Datacenter (64-bit)
- Windows Server 2008 R2 Standard with Service Pack 1 (64-bit)
- Windows Server 2008 R2 Enterprise with Service Pack 1 (64-bit)

- **10 or fewer client connections**, the minimum requirement is
  - Windows 10 Enterprise (32-bit or 64-bit)
  - Windows 10 Professional (32-bit or 64-bit)
  - Windows 8.1 Enterprise (32-bit or 64-bit)
  - Windows 8.1 Professional (32-bit or 64-bit)
  - Windows 8 Professional (32-bit or 64-bit)
  - Windows 7 Ultimate with Service Pack 1 (64-bit)
  - Windows 7 Enterprise with Service Pack 1 (32-bit or 64-bit)
  - Windows 7 Professional with Service Pack 1 (32-bit or 64-bit)

*Note:* Do not run the primary and secondary servers in a redundant server pair on the computers that have different operating systems. For example, do not run the primary server on a Windows Server 2008 R2 computer and the secondary server on a Windows Server 2012 computer.

The number of computers participating in a FactoryTalk View SE network application determines whether the computers can belong to a Windows domain or a workgroup.

Workgroups can be used only in applications that include 10 or fewer computers. Do not use Windows Workgroups with more than 10 computers, a Windows domain is recommended in that case.

For more information about setting up domains and workgroups, see the document, *FactoryTalk View SE Distributed System Design Considerations*, attached to Rockwell Automation Knowledgebase Answer ID 32549.

- A domain controller makes it possible to administer the network and user accounts from a central location. FactoryTalk Security, which manages centralized security services, supports Windows-linked accounts that are managed and authenticated by the Windows operating system, but have separate permissions for accessing the automation system.
• Name resolution is required for the computers to communicate with each other on the network.
• All computers participating in a single FactoryTalk system must be members of the same Windows domain.
• Do not locate the domain controller on the same computer as any FactoryTalk software. Microsoft recommends against third party software being installed on a domain controller.

Domain controller requirements

For network applications consisting of more than 10 computers, the use of a domain controller is recommended.

The following domain controllers are supported:

- Windows Server 2012 R2 Standard
- Windows Server 2012 R2 Datacenter
- Windows Server 2012 Standard
- Windows Server 2012 Datacenter
- Windows Server 2008 R2 Standard with Service Pack 1
- Windows Server 2008 R2 Enterprise with Service Pack 1

For more information about Windows operating systems and Service Pack compatibility, see Rockwell Automation Knowledgebase Answer ID 20450.

Note: Do not install FactoryTalk Directory, FactoryTalk View SE Server, or any other application software on the same computer as the Windows domain controller. This configuration is not supported.

About synchronizing time on application computers

In a networked system, to ensure that time stamps on alarms, historical data, and diagnostics are accurate, it is highly recommended that time synchronization be configured on all application computers.

For more information about synchronizing application computer clocks to an authoritative time server, see FactoryTalk View SE Design Considerations, attached to Rockwell Automation Answer ID 32549.

Windows workgroup requirements

For network applications consisting of 10 or fewer computers, you can run FactoryTalk View SE in a Windows workgroup network environment.

- Name resolution is required for the computers to communicate with each other on the network.
- Workgroups do not use a domain controller, so central network administration is not available. This means that security and network
communications (for example, name resolution) must be handled at each individual computer in the workgroup.

- Each workstation in a workgroup must have the same user accounts, with the same user names and passwords on each machine, for all machines participating in a client-server environment.

- All users in a workgroup should have Administrative rights assigned to them.

- FactoryTalk Directory provides centralized security services without requiring a Windows Server and domain controller. When setting up centralized security in a FactoryTalk Network Directory for Windows Workgroups, do not use Windows-linked accounts. Instead, create user accounts that are managed and authenticated by FactoryTalk Security.

**Set up computers with names to be used in production**

When you install the FactoryTalk Services Platform with FactoryTalk View SE, the program creates a FactoryTalk account for the current computer, under the Local and Network FactoryTalk Directories.

As a result, if you rename the computer after installing FactoryTalk View SE or when you deploy an application, the FactoryTalk Directory will not recognize the new name.

To avoid this problem, it is recommended that you give the application client and server host computers the names they will use in a production setting, before you install the FactoryTalk View SE software.

**Tip:** If you must rename a computer and you encounter problems, for assistance, see Rockwell Automation Answer ID 35169 (for FactoryTalk View SE network applications), or Answer ID 38775 (for FactoryTalk View SE local and ME applications).
Pre-installation configuration

This chapter guides you through the steps for preparing your computer for installation of the FactoryTalk View SE product and supporting software.

Use the following checklist for preparing the computer for installation:

- **Disable automatic Windows updates** on page 29
- **Manually configure Network Interface Cards and switch ports** on page 30
- **Disable or uninstall third-party firewalls** on page 31
- **Remove Internet Explorer Enhanced Security Configuration** on page 31
- **Set up Data Execution Prevention** on page 33 if needed
- **Remove unnecessary DCOM networking protocols** on page 33

When you install Microsoft Service Pack releases and other Windows operating system updates, you introduce new software that could affect the operation of FactoryTalk View SE components on the computer.

**Note:** Windows updates should be disabled in all production computers. Updates can cause unexpected behaviors, including shutting down running applications and automatic computer restarting.

To disable automatic Windows updates:

1. Open the Windows Update window.
2. In the left column, select **Change settings**.
3. In the **Important Updates** drop down, select **Never check for updates**.
4. Select the check box **Give me recommended updates the same way I receive important updates**.
5. Clear the check box **Allow all users to install updates on this computer**.

For more information about Windows operating systems and Service Pack compatibility, see Rockwell Automation Knowledgebase Answer ID 20450.
Manually configure NICs and switch ports

The Network Interface Card (NIC) is the hardware in a computer that lets it connect to other devices on the network. A switch manages traffic on the Ethernet network. Some switches allow ports (physical connections) to be configured individually.

The link speed and duplex settings for network connections can be auto-negotiated (the device determines the best way to communicate), or manually configured (settings are hard coded).

Many NICs also offer a power-saving feature that turns off the network card if it is not being used. This setting sometimes interferes with the ability of the computer to receive data, causing errors such as wireframes, stale data, and other failures. To prevent these errors, disable power saving for your computer’s network interface cards. For details, see Disable power saving for the NIC on page 31.

For FactoryTalk View SE applications, it is recommended that you use managed switches across the control system network and that you manually configure the same link speed and duplex setting for all network connections into the managed switches.

It is also recommended that you manually configure the managed switch ports, using the same settings. To learn how to configure switch ports, see the product documentation provided with the switches you are using.

For an overview of best practices for connecting devices over a network, see the Ethernet Design Considerations Reference Manual document in the Rockwell Automation Literature Library. (Search for publication ENET-RM002.)

Note: If you are using unmanaged switches, the NIC settings must remain auto-negotiated. Connecting an auto-negotiated device to a manually configured device can result in network communication errors and is not recommended.

Set up the NIC link speed and duplex

Follow the steps below. The steps may vary slightly for some of the Windows operating systems.

1. Open Windows Control Panel, and then click Network and Internet.
2. From the list of categories, select Network and Sharing Center.
3. From the list of Tasks on the left, select Change adapter settings (or Manage network connections).
4. From the list of network connections, right-click Local Area Connection (or Ethernet), and then select Properties.
5. In the Networking tab, click Configure.
6. In the **Properties** dialog box for the device, click the **Advanced** tab.

7. From the list of properties for the device, select **Link Speed & Duplex** (or **Speed & Duplex**).

8. From the **Value** list, select the highest possible value for the connection, and then click **OK**.

---

**Disable power saving for the NIC**

Follow the steps below. The steps may vary slightly for some of the Windows operating systems.

1. Open Windows Control Panel, and then click **Network and Internet**.

2. From the list of categories, select **Network and Sharing Center**.

3. From the list of **Tasks** on the left, select **Change adapter settings** (or **Manage network connections**).

4. From the list of network connections, right-click **Local Area Connection** (or **Ethernet**), and then select **Properties**.

5. In the **Networking** tab, click **Configure**.

6. In the **Properties** dialog box for the device, click the **Power Management** tab.

7. Clear the **Allow the computer to turn off this device to save power** check box, and then click **OK**.

---

**Disable or uninstall third-party firewalls**

FactoryTalk View SE is compatible only with the built-in Windows firewall and should not be used with third-party firewalls because this can cause unexpected results.

Before installing FactoryTalk View SE, disable or uninstall all third-party firewalls on the computer. For details, see the documentation supplied with your firewall product.

---

**Remove Enhanced Security Configuration**

Internet Explorer Enhanced Security Configuration (ESC) is a group of default security settings for Windows Server 2008 and Windows Server 2012 that protects servers by limiting the ways users can browse Internet and Intranet Web sites on the computer.

If installed on a computer with FactoryTalk View SE software components, the Internet Explorer ESC can interfere with the ability of FactoryTalk View SE Clients to connect to application servers.

To avoid unexpected behavior, it is recommended that you remove the ESC from computers running FactoryTalk View SE.
To remove ESC in Windows Server 2008 R2:

1. Select Start > Administrative Tools > Server Manager.

2. In the Server Manager window, under Security Information, click Configure IE ESC.

3. In the Internet Explorer Enhanced Security Configuration dialog, select Off to turn off IE Enhanced Security for Administrators and for users, and then click OK.
To remove ESC in Windows Server 2012:

1. On the Windows taskbar, select the **Server Manager** icon.

2. In the **Server Manager Dashboard** window, on the left side, click **Local Server**.

3. On the right side of the **Local Server** window, under **Properties**, locate **IE Enhanced Security Configuration** and click **On**.

4. In the **Internet Explorer Enhanced Security Configuration** dialog, select **Off** to turn off IE Enhanced Security for Administrators and for users, and then click **OK**.

Data Execution Prevention (DEP) is a Microsoft Windows security feature that is built into the operating system starting with Windows XP and Windows Server 2003. DEP is intended to protect programs and services from viruses and other security threats.

The DEP settings determine which programs and services are covered by DEP protection. On computers running FactoryTalk View SE components, it is recommended that DEP be turned on for essential Windows programs and services only.

**To turn on DEP:**

1. Open Windows Control Panel, select **Control Panel Home > System and Maintenance**.

2. Click **System**.

3. From the list of tasks on the left, select **Advanced system settings**.

4. In the **System Properties** dialog box, click the **Advanced** tab.

5. In the **Advanced** tab, under **Performance**, click **Settings**.

6. In the **Performance Options** dialog box, click the **Data Execution Prevention** tab.

7. Select the option, **Turn on DEP for essential Windows programs and services only**, and then click **OK**.

If multiple DCOM protocols are installed and configured on the computer, performance of communications in a FactoryTalk View SE system can be adversely impacted. To ensure that DCOM communications function correctly, and do not affect the performance of the system, remove all protocols other than TCP/IP.

**Set up Data Execution Prevention**

**Remove unnecessary DCOM networking protocols**
To remove unnecessary DCOM protocols:

1. Select Start > Run.

2. In the Run dialog box, type dcomcnfg, and then click OK.

3. In the Component Services tool, expand Component Services, open the Computers folder, right-click My Computer, and then select Properties.

4. Click the Default Protocols tab. If the DCOM Protocols list shows protocols in addition to TCP/IP, remove those unnecessary protocols. For example, remove the protocol Connection-oriented SPX.
Install FactoryTalk View

The FactoryTalk View installation DVD or installation package provides all the software you need to develop and run distributed systems involving multiple computers on a network, or local applications confined to a single computer using FactoryTalk View SE.

This chapter uses FactoryTalk View Studio Enterprise to illustrate the installation steps, because it includes all mandatory and optional installation choices included with the other selections on the welcome screen.

To learn about upgrading an existing version of FactoryTalk View SE, see Upgrade an operating FactoryTalk View SE application on page 85.

FactoryTalk View supports two installation methods: Setup wizard installation and unattended installation.

The unattended installation reduces user interaction and provides command line parameters to install FactoryTalk View products. See Use unattended installation on page 123.

This chapter uses the Setup wizard installation method to illustrate the steps. The overall installation process includes:

- Step 1: Prepare for the installation on page 35
- Step 2: Launch Setup wizard and select what to install on page 38
- Step 3: Setup product components on page 39
- Step 4: Review and accept license agreements on page 40
- Step 5: Start the installation process on page 41
- Step 6: Complete the installation on page 43
- Step 7: Post-installation procedures on page 45

In a distributed system, you can also install Site Edition clients through the web browser. For instructions, see Install SE clients in a distributed system on page 47.

To prepare for the installation:

- Ensure that the user installing the software has administrative rights in
Chapter 4  Install FactoryTalk View

Windows.

- If installing FactoryTalk View Studio Enterprise, locate the serial number because you will be prompted for it after the installation. Serial numbers are generally on the original packaging of the installation media.

- Schedule downtime for the system if you are upgrading operating applications or replacing computers during the installation.

Decide which FactoryTalk View SE components to install

The FactoryTalk View Setup Wizard offers several options for installing the FactoryTalk View Site Edition software. You can select:

- Studio Enterprise
- Site Edition Server
- Site Edition Client
- Site Edition Station
- FactoryTalk ViewPoint SE
- Stand-alone RSLinx Enterprise Server
- Stand-alone FactoryTalk Directory Server

The option you choose depends on the type of FactoryTalk View SE application or software component you plan to run on the computer and on the design of your control system.

For each selection on the Welcome Screen, the following table shows the mandatory, recommended and optional software components to install.

<table>
<thead>
<tr>
<th>Selected Application</th>
<th>Mandatory</th>
<th>Recommended</th>
<th>Optional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studio Enterprise</td>
<td>Studio Enterprise Site Edition Client Site Edition Server FactoryTalk ViewPoint SE FactoryTalk ViewPoint ME RSLinx Classic Device Status and Diagnostic Faceplates FactoryTalk Historian Connectivity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Site Edition Client</td>
<td>Site Edition Client FactoryTalk Services Platform FactoryTalk Activation Manager FactoryTalk Alarms and Events FactoryTalk Historian Connectivity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
About FactoryTalk Historian Connectivity

FactoryTalk Historian Connectivity allows the trending objects to retrieve data from a Historian SE Server or FactoryTalk Historian ME Module. It makes updates to FactoryTalk Administration Console and FactoryTalk View SE Studio to display an Historian icon for FactoryTalk Historian SE when registered. You can use it to create new FactoryTalk Historian SE points from trending objects, and select existing Historian points from Historian SE or Historian ME.

To trend data points from the FactoryTalk Historian SE server, FactoryTalk Historian Connectivity must be installed as a minimum required component with Site Edition Client or Studio Enterprise.

Tip: You cannot install FactoryTalk Historian Connectivity on top of FactoryTalk Historian SE.

Before you start using the trending objects with your FactoryTalk Historian SE server, do the following:

- Add the FactoryTalk Historian SE server to the same FactoryTalk Directory as FactoryTalk View SE computers.
- Create a mapping or trust for security between FactoryTalk View SE and FactoryTalk Historian SE.

For detailed instructions, see Appendix D, FactoryTalk View SE TrendX, of FactoryTalk Historian SE Installation and Configuration Guide.
To launch the Setup wizard and select the product to install:

1. Close all open Windows programs.

2. Place the FactoryTalk View installation DVD in the computer’s DVD drive, or double click `Setup.exe` within the installation package.

   **Tip:** If the installation does not start automatically, double-click `D:\Setup.exe`, where `D:` is the drive containing the DVD.

3. On the *Welcome* page, select the product to install, and select another language that will be displayed during the installation process if needed.

4. To install all components available in the selected product using the recommended settings, click **Install Now** and skip to *Step 4: Review and accept license agreements* on page 40.

5. To choose which components to install, click **Customize**.
6. To view Release Notes of the selected product, click **Release notes**.

**Step 3: Setup product components**

For each FactoryTalk View product, there may be three different options displayed:

- **Mandatory** components are selected and shaded, and will be automatically installed as part of the selected application.
  
  **Tip:** If a product is already installed, it appears shaded and cannot be selected.

- **Recommended** components are selected, and indicate software that Rockwell recommends for the application.

- **Optional** components are not selected, and indicate software that you may wish to include depending on your system.

**To setup product components:**

1. On the **Customize** page, select components you want to install and clear components you do not want to install.

2. If needed, select another drive location for the installation.
3. Click **Install** to proceed.

---

### Step 4: Review and accept license agreements

End user license agreements (EULA) spell out your rights and responsibilities. Depending on the applications being installed, it is possible that there may be more than one license agreement on this page.

Some software products may be delivered or made available only after you agree to the terms and conditions of each of the license agreements.

**To accept the license agreements:**

1. On the **End User License Agreements** page, select an agreement to review the details.

2. Repeat for each license agreement.

3. After you review all license agreements, click **Accept All** to agree with the terms of all the listed license agreements and start the installation process.
Tip: If you do not accept the terms, click Decline and return to the Welcome page.

After installing prerequisites, the Setup wizard automatically installs all the Rockwell Software applications selected previously. Installation is automatic and does not require any input from the user.
Tip: The Setup wizard generates a random password for the SQL Server System Administrator (SA) account and the FTVIEWUSER account. For more information about installing another compatible SQL Server edition, refer to Install Microsoft SQL Server on page 115.

During the installation, the Progress page displays the percentage of the installation complete and the status notification messages at the bottom of the page identify which files are being installed.
Step 6: Complete the installation

When the installation of selected products completes, the Setup wizard first searches for activation keys required the installed products. If no available activation keys are found, the activation page is displayed. You can specify whether to activate the products now or later.

To complete the installation:

1. On the Activation page, select one option and click Next.
• To skip the activation and activate later, select **Skip activation**.

• To proceed directly to activate the installed products, select **Activate your software**.

In the **Software Activation** dialog box, specify the required information and click **Continue**. For more information about activation, see Activate FactoryTalk View software on page 49.

![Software Activation dialog box](image)

2. On the **Summary** page:
- To view the installation details, click **Installation Summary**.
- To receive the latest product updates and patch notification, click **Register for updates** and subscribe.
- To install the latest version of Adobe Acrobat Reader, click **Download it free** and follow the on-screen instructions.

3. Click **Restart now** to restart your computer now. Click **Restart later** to restart later.

---

**Step 7: Post-installation procedures**

After you install FactoryTalk View, there may be several final setup steps that must be completed:

- **Install product updates** on page 112
- **Specify the Network Directory server location** on page 45

**Specify the Network Directory server location**

After installing FactoryTalk software, specify one of the computers on the network as the Network Directory server, and then point the other computers on the network to that computer. This allows all of the computers on the network to share FactoryTalk Network Directory services and resources.
To configure the Network Directory Server computer:

1. On the computer that you want to use as the Network Directory Server, from Windows Start menu, select All Programs > Rockwell Software > FactoryTalk Tools > Specify FactoryTalk Directory Location.

   Tip: You will have to log on as an administrator on the local computer.

2. In the FactoryTalk Directory Server dialog box,
   - If localhost is not displayed in the field Computer hosting directory server, click the Browse button.
   - If localhost is displayed, the computer is already specified as the Network Directory host. You can close the utility.

3. In the FactoryTalk Directory Server Configuration dialog box, select This computer and click OK.

4. Click OK to close the utility.

To configure the client and other application server computers:

1. On one client computer, from Windows Start menu, select All Programs > Rockwell Software > FactoryTalk Tools > Specify FactoryTalk Directory Location.

   Tip: You will have to log on as an administrator on the local computer.

2. In the FactoryTalk Directory Server dialog box, beside the field Computer hosting directory server, click the Browse button.


4. Type the name of the Network Directory server computer, or click the Browse button to find and select the computer, and then click OK.

   Tip: You will have to log on as an administrator on the remote computer.

5. Click OK again to close the utility.

6. Repeat steps 1 to 5 on the remaining client and server computers that will participate in the deployed network distributed application.
Install SE clients in a distributed system

In a distributed system, after installing the server computer with the Client Install Portal feature, you can install SE clients through the web browser.

To install the SE client application:

1. On the client computer, open Internet Explorer.

2. In the Address field of Internet Explorer, type the following address:

   http://servername/ftviewclient

   where servername is the name of your FactoryTalk View SE server computer.

   If you are using SSL, then begin with https:// instead.

   Example: If your SE server name is MYSERVER, type: http://MYSERVER/ftviewclient

3. Press Enter.

   Internet Explorer displays a page from the server that allows you to install the FactoryTalk View Site Edition Client application.

4. Microsoft .NET Framework 4.0 or higher is required before you can install FactoryTalk View Client. If it is not installed, FactoryTalk View installs .NET Framework 4.6 by default. Click Install .NET Framework 4.6 on this computer to install it. The option is not shown if it is already installed.
5. Follow the on-screen instructions. If prompted to restart your computer, click Restart Now.

6. Once the computer has restarted, repeat steps 1 to 4.

7. To install SE Client, click **Install FactoryTalk View Site Edition Client on this computer**. Follow the on-screen instructions.

   If you are displaying data from FactoryTalk Historian on trends, click **Install FactoryTalk Historian Connectivity tools**. Follow the on-screen instructions to complete the installation. For more information about FactoryTalk Historian Connectivity, see [About FactoryTalk Historian Connectivity](#) on page 37.
Chapter 5

Activate FactoryTalk View software

For continuous use of FactoryTalk View SE and other Rockwell Software products, computers running the software must have access to activation files.

To manage and provide activations for FactoryTalk View SE software components, use the FactoryTalk Activation Manager installed with FactoryTalk View.

FactoryTalk Activation Manager provides a secure, software-based system for activating Rockwell Software products and managing software activation files.

With FactoryTalk Activation Manager, there is no need for a physical master disk or any physical media; instead, activation files are generated and distributed electronically.

FactoryTalk View SE products use two types of activations:

- **Floating** concurrent activations are checked out of an activation server located on the network, and require a continuous network connection.
- **Borrowed** concurrent activations are time-expiring activations checked out of an activation server on the network, and do not require a continuous network connection.

For standard installations of the product software, FactoryTalk View SE supports only the use of both types of **shared concurrent** activations. Node-locked activations are not supported.

**Tip:** To learn about the types of activation that other Rockwell Automation products can use, see the product documentation or contact your local Rockwell Automation Sales office.

If the FactoryTalk View components you have installed cannot be activated, for example, because the activation server is unavailable or because borrowed activations have expired, the software will continue to run for up to seven days.

The seven-day grace period allows time to correct the problem with acquiring activations without disrupting critical applications. If activation is restored within seven days, normal operations will resume.
If activation is not restored, the grace period will expire. After the grace period expires, if you restart FactoryTalk View SE and activation remains unavailable, the software will run for two hours in demo mode.

With a FactoryTalk View SE network distributed application, running in demo mode, you can:

- Create or load up to five HMI servers locally in FactoryTalk View Studio.
- Create or load up to five graphic displays per HMI server.
- Run a local station FactoryTalk View application for up to two hours. In demo mode, remote clients cannot connect to a FactoryTalk View server.
- In Symbol Factory, import only the first graphic in each category.

Floating concurrent activations are assigned automatically to clients that need them, and returned automatically to the activation server pool when FactoryTalk View SE stops running on the client, or when the client computer shuts down.

Client computers must be set up to obtain floating activations from the activation server.

If you prefer to use borrowed activations for clients, skip to Borrow activations for development computers on page 51.

After you set up the activation server (or servers), you can specify which server each client computer will obtain activations from.

Once a client is connected to a server, all you have to do is to run the FactoryTalk View software (for example, the FactoryTalk View SE Client), and the server will issue available activations automatically.

A continuous network connection is required for an activation client to use floating activations. After a client obtains a floating activation, when the activation server detects that the client has been disconnected, the activation is returned to the server pool.

To ensure that critical software components (redundant HMI servers, for example) can always obtain the necessary activations, set up an activation server on the computer where the software is running.

To ensure that critical software components in a network application using floating activations can always obtain the necessary activations, even if the network is disrupted, set up a FactoryTalk Activation server on every computer where the FactoryTalk View SE software is running. This includes all clients and all servers, whether redundant or not.
For example, to ensure that a redundant FactoryTalk View SE Server remains activated, install the activation server on both computers hosting the redundant server pair, and then add the necessary activations to those computers.

If it is not convenient for a development computer to remain connected to the network where the activation server resides, you can connect to the activation server temporarily, borrow a concurrent activation for a limited amount of time, and then disconnect. When the time-limited activation expires, its associated software is no longer activated, and the activation automatically becomes available again from the server’s activation pool.

Only the FactoryTalk View Studio activation keys can be borrowed. While developing Network applications disconnected from the network, the FactoryTalk View Studio activation key is shared by any test clients and HMI servers in your application, allowing all necessary components to run for development purposes.

Note: To use borrowed activations, you must upgrade to FactoryTalk Activation Manager version 3.30 or later (included on any FactoryTalk CPR 9 SR 4 product’s DVD) on all server and client computers where the borrowed activations will be used.

The activation files you download from the Rockwell Software Activation Website contain the activation keys you purchased, in encrypted form. The activation key is the software that activates FactoryTalk View SE components. Following is a list of activation keys used by the FactoryTalk View SE and ME products.

Tip: For information about the keys required to activate other Rockwell Automation products in your application, see the product documentation.

<table>
<thead>
<tr>
<th>To activate this software product or component</th>
<th>Use this key</th>
</tr>
</thead>
<tbody>
<tr>
<td>FactoryTalk View Studio*</td>
<td>RSV.STUDIO</td>
</tr>
<tr>
<td>*Includes software for developing and testing FactoryTalk View Site Edition and Machine Edition applications</td>
<td></td>
</tr>
<tr>
<td>FactoryTalk View SE Server (network distributed applications), unlimited displays</td>
<td>RSVSESRV.MAX</td>
</tr>
<tr>
<td>FactoryTalk View SE Server (network distributed applications), 250 displays</td>
<td>RSVSESRV.250</td>
</tr>
<tr>
<td>FactoryTalk View SE Server (network distributed applications), 100 displays</td>
<td>RSVSESRV.100</td>
</tr>
<tr>
<td>FactoryTalk View SE Server (network distributed applications), 25 displays</td>
<td>RSVSESRV.25</td>
</tr>
<tr>
<td>FactoryTalk View SE Client (network distributed applications), read and write</td>
<td>RSVSECCLI.RW</td>
</tr>
<tr>
<td>FactoryTalk View SE Client (network distributed applications), view only</td>
<td>RSVSECCLI.RO</td>
</tr>
<tr>
<td>FactoryTalk View SE Station (network station and local station applications), unlimited displays</td>
<td>RSVSE.MAX</td>
</tr>
</tbody>
</table>
Sharing keys among multiple software components

Multiple FactoryTalk View SE software components can function using one activation key in the following cases:

- Multiple instances of FactoryTalk View Studio or the FactoryTalk View SE Client running on the same computer can use a single key (RSV.STUDIO or RSVSECLI), as long as the components are not running in a Terminal Services session.

- In the network application of FactoryTalk View SE versions earlier than 6.10, for development and testing purposes, one FactoryTalk View Studio key activates a FactoryTalk View SE Client and SE Server on the same computer. Remote clients and servers require component-specific activations.

Note: In version 6.10 or higher, one FactoryTalk Studio key can no longer activate the local server or client to run in test run mode.

- Local applications use a single key (RSVSE.*) to activate both the FactoryTalk View SE Client and the FactoryTalk View SE Server at run time. These components running together are also known as FactoryTalk View SE Station.

Tip: FactoryTalk View SE Server activations—known as capacity activations because they are based on the number of displays in an application—cannot be shared.

Read-write versus view-only activations

In a network application, FactoryTalk View SE Clients can use two types of activation:

- **Read-write** keys (RSVSECLI.RW) allow full read-write privileges.

- **View-only** keys (RSVSECLI.RO) allow view-only privileges.

Whether a FactoryTalk View SE Client runs in read-write or in view-only mode depends on the type of activation key available for the client to use, and whether the client itself is set up as read-write or view-only:

- If the activation server can only provide view-only licenses, and a read-write client obtains one of these licenses, then the activation overrides the client’s configuration, and the client runs in view-only mode.
- If the activation server can only provide read-write licenses, and a view-only client obtains one of these licenses, then the client’s configuration overrides the activation, and the client runs in view-only mode.

- Do not rely on available activation keys to determine whether the FactoryTalk View SE Client runs in read-write or view-only mode. Instead, to ensure that a client always runs in view-only mode, choose the view-only option when setting up the client’s configuration file. For details, click **Help** in the FactoryTalk View SE Client wizard.
Deploy network distributed applications

After developing and testing a FactoryTalk View Site Edition network distributed application, you can deploy it to run in a live setting, such as the plant floor. Deploying a network distributed application often involves installing FactoryTalk View SE software components on multiple client and server computers.

For details about installing the software, see Install FactoryTalk View on page 35. For information about upgrading a network distributed application that is already deployed, see Upgrade an operating FactoryTalk View SE application on page 85.

For details about the structure and content of network distributed applications, see Chapter 6, Working with network distributed applications in the FactoryTalk View Site Edition User’s Guide.

Overview of tasks

The checklist in this section summarizes the basic tasks involved in deploying a FactoryTalk View SE network distributed application. Each task is described in detail in the rest of this chapter. Add or remove steps as necessary to create a customized procedure that reflects the design and content of your FactoryTalk View application. For example, your application might include additional communications or database servers.

- Step 1: Back up the network distributed application on page 55
- Step 2: Restore the network distributed application on page 58
- Step 3: Renew data server shortcuts, topics, and device paths on page 59
- Step 4: Set up additional HMI server properties on page 60
- Step 5: Set up the FactoryTalk View SE Clients on page 64
- Step 6: Run the FactoryTalk View SE Clients on page 66 to test the application

Step 1: Back up the network distributed application

Before backing up an application, record the user names and passwords of administrative users set up for the application, in case you need this information after restoring the application.

Use the Distributed Application Manager tool to back up the application. The backup archive has an .APB extension, and includes all FactoryTalk Directory data, such as accounts, passwords, policies and security settings. It also includes all
application contents like application configurations, HMI servers, data servers, and tag Alarm and Event servers.

**Note:** RSLinx Classic configuration files are not included when you back up a FactoryTalk View SE application. You need to back up the RSLinx Classic configuration files manually. For instructions, see Back up RSLinx Classic configurations on page 56.

**To back up the application:**

1. On the HMI server, select **Start > All Programs > Rockwell Software > FactoryTalk View > Tools > Distributed Application Manager.**

   **Tip:** The logged on user must have the **Backup and restore directory contents** permission. For more information, see FactoryTalk Security Help or check with your System Administrator.

2. In the **Create a Backup** tab, select your application and follow the wizard to back up the application. For more instructions, see Distributed Application Manager Help.

   ![Distributed Application Manager](image)

**Back up RSLinx Classic configurations**

RSLinx Classic configuration files are not included when you back up an application. You have to back up, move, and restore the files manually.

If RSLinx Classic is installed on the development and production computers, you can use the **RSLinx Classic Backup/Restore** tool to back up and restore configuration files.
Tip: You can also restore RSLinx Classic configuration files from the Wizard Completed window of the RSLinx Classic software setup program.

**To back up RSLinx Classic configurations:**

1. On the development computer, from **Windows Start** menu, select **All Programs > Rockwell Software > RSLinx > RSLinx Classic Backup Restore Utility**.

2. In the **RSLinx Classic Backup/Restore** tool, click **Backup**.

3. Select a folder for the backup file, type a file name, and then click **Save**.

The following illustration shows what a FactoryTalk View SE network distributed application looks like when opened in FactoryTalk View Studio.

The FactoryTalk Network Directory is represented at the top of application hierarchy. One level down, the System folder stores settings that are used by all the applications that belong to the same Network Directory.

For example, FactoryTalk user and computer accounts set up for each application are stored in the System folder.

**Note:** RSLinx Enterprise device paths are also saved with System information, and might not be correct for the computer where the application will be restored. For information about checking device paths after restoring an application, see **Verify RSLinx Enterprise shortcuts** on page 100.
Step 2: Restore the network distributed application

Before restoring the network distributed application, all client and server computers in the application must point to the same FactoryTalk Directory server.

Use the Distributed Application Manager tool to restore the application. You can restore the application to an existing or a new FactoryTalk Directory. You can choose to restore the HMI project files only, the application only, the application with FactoryTalk Directory, or the application with FactoryTalk Directory and security identifier.

After restoring the application, restore the RSLinx Classic configurations as need. See Restore RSLinx Classic configurations on page 58.

To restore an application:

1. On the HMI server, select Start > All Programs > Rockwell Software > FactoryTalk View > Tools > Distributed Application Manager.

   Tip: The logged on user must have the Backup and restore directory contents permission. For more information, see FactoryTalk Security Help or check with your System Administrator.

2. In the Restore an Archive tab, specify the restore options.

3. Follow the wizard to restore the application. The following example shows an overview of the tool when restoring an archive. For more instructions, see Distributed Application Manager Help.

   ![Distributed Application Manager](image)

   RSLinx Classic configuration files are not included when you back up an application. You have to back up, move, and restore the files manually.
If RSLinx Classic is installed on the development and production computers, you can use the RSLinx Classic Backup/Restore tool to back up and restore configuration files.

**Tip:** You can also restore RSLinx Classic configuration files from the Wizard Completed window of the RSLinx Classic software setup program.

**To restore RSLinx Classic configurations:**

1. Copy the backup file (with .rsx extension) from the development computer and paste it into a location on the data server production computer.

2. On the production computer, from **Windows Start** menu, select **All Programs > Rockwell Software > RSLinx > RSLinx Classic Backup Restore Utility**.

3. In the **RSLinx Backup/Restore** tool, click **Restore**.

4. Find and select the backup file, and then click **Open**.

After restoring RSLinx data servers in the application, renew or verify the topics, shortcuts, and device paths associated with each data server, as needed.

If you are restoring redundant data servers, then the device paths must be confirmed and reapplied for both the primary and the secondary server.

**To renew RSLinx Enterprise device paths:**

1. Open the restored application in the FactoryTalk Administration Console.

2. In the Explorer window, expand the data server (RSLinx Enterprise), and then double-click **Communications Setup**.

3. In the Communications Setup editor, select each configured RSLinx Enterprise shortcut, point the shortcut at the correct device, and then click **Apply**.

4. Save the configuration, and then close the **Communications Setup** editor.

**To verify RSLinx Classic topics:**

1. On the data server computer, select **Start > All Programs > Rockwell Software > RSLinx > RSLinx Classic**.

2. On the DDE/OPC menu, click **Topic Configuration**.

3. In the Topic List, select each configured topic and confirm that the corresponding data source updates correctly.
4. Click the Advanced Communication tab, confirm that there is a device path specified for Remote Addressing, and then click Done.

**Step 4: Set up additional HMI server properties**

After restoring the application, you can open the HMI server properties dialog box in FactoryTalk View Studio to verify the HMI server settings and set up the following HMI server properties, as needed.

- Specify the startup type
- Set up redundancy
- Specify startup components

You must set up the HMI server properties separately, for each server in the FactoryTalk View SE network distributed application you are deploying. You can do this on the computer running the HMI server, or from a remote computer.

For details about setting up HMI server properties, see Chapter 6, *Working with network distributed applications* in the FactoryTalk View Site Edition User’s Guide. For details about setting up redundant HMI servers, see Chapter 14, *Setting up FactoryTalk system availability* in the FactoryTalk View Site Edition User’s Guide.

**Specify the startup type**
In the **General** tab, you can specify that the HMI server will load when the first client attempts to connect to it (On demand) or when the host computer starts up (Load and run startup components when operating system initializes). The second option is recommended for production HMI servers, and required for an HMI server that is part of a redundant pair.

![InstantFuzz_HMI Properties](image)

**Set up redundancy**

In the **Redundancy** tab, to set up redundancy for the HMI server, first select the check box, **Provide redundancy using a secondary server**; then specify the name the computer that will host the secondary server, and select a switchover option.
Tip: Before you can specify the secondary server in a redundant pair, you must manually copy the HMI project files to the secondary server computer.

Specify startup components

In the **Components** tab, select the application components that will start automatically when the HMI server starts, and select the macro that will run when the server shuts down. You can also start or stop components manually.
If the HMI server is redundant, you can also start and stop components for the primary and the secondary server, and select On active and On standby macros.

After setting up redundancy for an HMI server, to ensure that identical copies of the HMI server and project files are running on the primary and the secondary computers, replicate changes from the primary to the secondary server.

The replicate operation copies the primary server’s configuration files, including settings in the Components tab, to the secondary server.

For example, if an On Active and a Shutdown macro are selected for the primary server, the settings will be replicated to the secondary. This means that the same macros specified for the primary server will run when the secondary server becomes active or shuts down.

Information that is not included in the replicate operation includes datalog files generated at run time, the current value of HMI memory tags, retentive tags, and the HMI tag alarm suppressed list.
Note: For the replicate operation to succeed, a copy of the HMI project files must already exist on the secondary server computer. In addition, the state of the primary server must be Active, and the state of the secondary server must be Standby, for the duration of the operation.

To replicate changes from the primary to the secondary server:

1. Open the restored application in the FactoryTalk View Studio Enterprise.

2. In the Explorer window, right-click the HMI server’s name, and then click Properties.

3. Click the Redundancy tab, and then click Replicate Primary to Secondary.

Tip: If a secondary server is not specified, the button is not available.

4. To finish replicating, follow the on-screen instructions. After the replicate operation is complete, the secondary server is restarted.

The FactoryTalk View SE Client provides a complete and secure run-time environment for a local application. For example, operators can use the client to:

- Load, view, and interact with graphic displays from any HMI server in the application.
- Monitor and control alarms (HMI tag alarms and FactoryTalk Alarms and Events).
- View and interact with trends.
- Adjust set points.
- Start and stop server components.

In a network distributed application, FactoryTalk View SE Clients, HMI servers, and data servers can run on multiple computers, connected over a network.

If you have already set up FactoryTalk View SE Client files for a network distributed application, you can copy the files to the production computers. Otherwise, you can create new client files.

FactoryTalk View SE Client configuration files specify the name of the application the client will connect to, the components that start when the connection is made, and how the client will behave at run time.

To create a new client file, use the FactoryTalk View SE Client Wizard. You can also use the wizard to modify or run an existing client file, or to remove a client from the list of available files.
Tip: It is not necessary to start the HMI server if you want to use the FactoryTalk View SE Client Wizard.

To create a new FactoryTalk View SE Client file:


2. In the FactoryTalk View SE Client Wizard, click New, and then follow the on-screen instructions. For details about options in the wizard, click Help.

The client file is created with a .cli extension, in the location you specified.

Copy existing FactoryTalk View SE Client files

When setting up the FactoryTalk View SE Clients for a network distributed application, you can copy existing client files from the development computer to the client production computers.

You can run the client configuration from the desktop, or from any other location on the client computer.

By default, client configuration files are saved under C: \ Users \ Public \ Public Documents \ RSView Enterprise \ SE \ Client.

Lock operators into the run-time environment

To lock operators into the FactoryTalk View SE Client at run time, for example, to prevent access to other programs on the computer, try one or more of the following methods:

- Limit the ability to manipulate graphic displays, by removing the title bar or minimize and maximize buttons from selected displays.
  
  To do this, in the Display Settings dialog box, clear the check boxes Title Bar, Minimize Button, and Maximize Button. For details, see Chapter 16, Creating graphic displays in the FactoryTalk View Site Edition User's Guide.

- Limit the ability to manipulate the client window, by removing the title bar or minimize and maximize buttons from the client.
  
  To do this, in the FactoryTalk View SE Client wizard, clear the check boxes Show title bar, and Show system menu and close button. For details, click Help in the FactoryTalk View SE Client wizard.

- Prevent switching to other applications. To do this, in the FactoryTalk View SE Client wizard, select the check box, Disable switch to other applications. For details, click Help in the FactoryTalk View SE Client wizard.

- Restrict access to the desktop, using the DeskLock tool.
  
  To open Desklock, on the desktop click Start > All Programs > Rockwell Software > FactoryTalk View > Tools, and then click DeskLock.
For details about using DeskLock, click Help within the tool.

Note: Do not enable DeskLock until you read the help for the tool and understand how it works. Otherwise, you could end up locking yourself out of the desktop.

**Step 6: Run the FactoryTalk View SE Clients**

Once the network distributed application is fully deployed, test it by running the FactoryTalk View SE Clients.

To start the FactoryTalk View SE Client, or to change users while the client is running, the user logging on must have the necessary security permissions. If the user does not have the necessary permissions, the FactoryTalk View SE Client login dialog box opens, to let another user log on.

Note: To connect a FactoryTalk View SE Client to a network distributed application, all client and server computers in the application must point at the same FactoryTalk Network Directory server. For details, see Specify the Network Directory location on application computers on page 69.

For tips to help you get communications working between clients and servers, see the FactoryTalk View Site Edition Help.

To run an SE Client using the .cli file:

Double-click the client setup file (.cli), in the default folder C:\Users\Public\Public Documents\RSView Enterprise\SE\Client.

To run an SE Client from FactoryTalk View Studio:

1. In FactoryTalk View Studio, on the Tools menu, click Launch SE Client.

2. In the FactoryTalk View SE Client Wizard dialog box, select the client configuration file from the list of most recently used files and click Run. To search for and select another file, click the browse button.

To run an SE Client when Windows starts:

1. Create a shortcut to the .cli file (on the desktop, for example).

2. Move the shortcut to the Windows Startup folder.

For information about adding shortcuts to the Startup folder, see the Windows Help
Deploy network station applications

After you finish developing and testing a FactoryTalk View Site Edition network station application, you can deploy it to run in a live setting, such as the plant floor. Deploying a network station application involves installing all FactoryTalk View SE software components on the application’s host computer.

For details about installing the software, see Installing FactoryTalk View on page 35.

For details about the structure and content of network station applications, see Chapter 7, Working with network station applications in the FactoryTalk View Site Edition User’s Guide.

The checklist in this section summarizes the basic tasks involved in deploying a FactoryTalk View SE network station application. Use the checklist to guide you through the tasks you need to perform. Each task is described in detail in the rest of this chapter.

If appropriate, add or remove details to create a customized procedure that reflects the design and content of your FactoryTalk View application. For example, your application might include additional communications or database servers so you may need to repeat these steps accordingly.

- **Step 1**: Move the network station application on page 68
- **Step 2**: Specify the Network Directory location on application computers on page 69 if necessary
- **Step 3**: Move the application’s data server files on page 69
- **Step 4**: Specify data server host computer names on page 70
- **Step 5**: Renew data server shortcuts, topics, and device paths on page 72
- **Step 6**: Specify when HMI server components start or stop on page 72
- **Step 7**: Set up the FactoryTalk View SE Client on page 73
- **Step 8**: Run the FactoryTalk View SE Client on page 75 to test the application
Chapter 7
Deploy network station applications

There are two steps involved in moving a network station application: on the
development computer, back up the application; then, on the production
computer, restore the application archive.

You can perform both of these steps in the Application Manager tool. For details
about options in the Application Manager, click Help in the tool.

Note: Before backing up an application, record the user names and passwords of administrative
users set up for the application, in case you need this information after restoring the
application.

To back up a network station application:

1. On the desktop, select Start > All Programs > Rockwell Software >
FactoryTalk View > Tools > Application Manager.

2. In the Application Manager, select Site Edition (Network Station), and
then click Next.

Tip: To back up a network station application, the logged on user must have
FactoryTalk administrative rights. If you receive a prompt to log on, check with your System Administrator.

3. Select the back up operation, and then follow the instructions in the
Application Manager to complete the operation.

4. Copy the .apa file to the new (production) computer.

If you are restoring a network station application on a computer that contains a
copy of the original application, ensure the application is not running, then use the
Application Manager to delete (or rename) the original application, before you
begin the restore operation.

To restore a network station application:

1. On the production computer, on the desktop, select Start > All Programs >
Rockwell Software > FactoryTalk View > Tools > Application Manager.

2. Select Site Edition (Network Station), and then click Next.

Tip: To restore a network station application, the logged on user must have FactoryTalk
administrative rights. If you receive a prompt to log on, check with your System Administrator.

3. Select the restore operation, and then follow the instructions in the
Application Manager to complete the operation.

4. Copy the backed up application to the new (production) computer.
Step 2: Specify the Network Directory location

If you have not done so already, use the FactoryTalk Directory Server Location Utility to specify the location of the FactoryTalk Network Directory server.

Performing this task might require more than one set of FactoryTalk security credentials:

- To use the FactoryTalk Directory Server Location Utility, you must have administrative rights on the local computer.
- To specify a remote location for the Network Directory, you must have administrative rights on the remote computer.

To specify the Network Directory on application computers:

1. On the client or server computer, select Start > All Programs > Rockwell Software > FactoryTalk Tools > Specify FactoryTalk Directory Location.

2. Click the Browse button beside the field, Computer hosting directory server.


4. Type the name of the Network Directory server computer, or click the Browse button to find and select the computer, and then click OK.

You will have to log on as an administrator on the remote computer.

5. Click OK again, to close the FactoryTalk Directory Server Location Utility.

Step 3: Move the application’s data server files

After specifying the FactoryTalk Network Directory location on application computers, ensure that the required communications software (RSLinx Enterprise, RSLinx Classic, or other OPC software) is installed on computers that will run data servers.

Then, if necessary for the data servers you are deploying, move configuration files to the production computers, and then specify the new host computer names.

Tip: For information about moving setup files for OPC data servers other than RSLinx Classic, see the product documentation for the OPC server

Restore RSLinx Classic configurations

RSLinx Classic configuration files are not included when you back up an application. You have to back up, move, and restore the files manually.

If RSLinx Classic is installed on the development and production computers, you
can use the RSLinx Classic Backup/Restore tool to back up and restore configuration files.

**Tip:** You can also restore RSLinx Classic configuration files from the Wizard Completed window of the RSLinx Classic software setup program.

**To restore RSLinx Classic configurations:**

1. Copy the backup file (with .rsx extension) from the development computer and paste it into a location on the data server production computer.

2. On the production computer, from **Windows Start** menu, select **All Programs > Rockwell Software > RSLinx > RSLinx Classic Backup Restore Utility.**

3. In the **RSLinx Backup/Restore** tool, click **Restore.**

4. Find and select the backup file, and then click **Open.**

---

**Step 4: Specify data server host computer names**

After moving data server configuration files to production computers, open the restored network station application, and in the Properties dialog box for each data server, specify the name of the server’s host computer.

Then, renew RSLinx shortcuts, topics, and device paths, as needed. For details, see **Step 5: Renew data server shortcuts, topics, and device paths** on page 72.

For information about setting up other data server properties, click **Help** in the server’s Properties dialog box, or see the product documentation.

**Tip:** The first time you open an application after relocating a data server, if the server does not load, you should still be able to open the Properties dialog box and change the host computer name. After the computer name is updated, the server should load as expected.

**To change the RSLinx Enterprise server computer name:**

1. Click **Start > All Programs > Rockwell Software,** and then click **FactoryTalk Administration Console.**

2. In the **Select FactoryTalk Directory** dialog box, select **Network,** and then click **OK.**
3. In the Explorer window, expand the name of the restored application, right-click the RSLinx Enterprise server’s name, and then click **Properties**.

![RSLinx Enterprise Server Properties](image)

4. In the **General** tab, in the field, **Computer hosting the RSLinx Enterprise server**, type the name of the production computer, or click **Browse** to find and select the computer, and then click **OK**. Acknowledge the warning if needed by clicking **OK**.

To change the RSLinx Classic server computer name:

1. Open the restored application in the FactoryTalk Administration Console. To learn how to do this, see the previous task.

2. In the Explorer window, expand the name of the restored application, right-click the RSLinx Classic server’s name, and then click **Properties**.

3. In the General tab, in the field, **Computer that will run the OPC server**, type the name of the production computer, or click **Browse** to find and select the computer, and then click **OK**.
Step 5: Renew data server shortcuts, topics, and device paths

After restoring the application, renew or verify the topics, shortcuts, and device paths associated with each data server, as needed.

If you are restoring redundant data servers, then the device paths must be confirmed and reapplied for both the primary and the secondary server.

**To renew RSLinx Enterprise device paths:**

1. Open the restored application in the FactoryTalk Administration Console.
2. In the Explorer window, expand the data server (RSLinx Enterprise), and then double-click **Communications Setup**.
3. In the Communications Setup editor, select each configured RSLinx Enterprise shortcut, point the shortcut at the correct device, and then click **Apply**.
4. Save the configuration, and then close the **Communications Setup** editor.

**To verify RSLinx Classic topics:**

1. On the data server computer, select **Start > All Programs > Rockwell Software > RSLinx > RSLinx Classic**.
2. On the DDE/OPC menu, click **Topic Configuration**.
3. In the Topic List, select each configured topic and confirm that the corresponding data source updates correctly.
4. Click the **Advanced Communication** tab, confirm that there is a device path specified for Remote Addressing, and then click **Done**.

In **FactoryTalk View Studio**, open the Properties dialog box for the HMI server in the application, to view the location of the HMI project files, the current number of displays in the application, and the maximum number of displays allowed.

You can add a description for the HMI server and, in the Components tab, select components that will start when the HMI server starts running.

**Tip:** In a local station application, the HMI server and the application have the same name. The name cannot be modified in the HMI server’s Properties dialog box.

**Step 6: Specify when HMI server components start or stop**

**To open the HMI Server Properties dialog box:**

1. Click **Start > All Programs > Rockwell Software**, and then click **FactoryTalk View Studio**.
2. Select **View Site Edition (Network Station)**, and then click **Continue**.
3. Click the **Existing** tab, select the network station application’s name, and then click **Open**.

4. In the Explorer window, right-click the HMI server’s name, and then click **Properties**.

Use the HMI Server Properties dialog box to specify which components in a local station application will start automatically, when the HMI server starts running.

In a network station or local station application, the HMI server loads and the specified components start running when the FactoryTalk View SE Client connects to the application. When the client stops running, the HMI server is unloaded, and the specified shutdown macro is run.

You can also start or stop the HMI server components manually. To do this, in the Components tab, click **Run Startup Components** and **Stop All Running Components**, respectively.

**To select HMI server startup and shutdown components:**

1. In the HMI Server Properties dialog box, click the **Components** tab.

2. To specify startup components, select the component check boxes, and then select the components you want to start automatically, when the HMI server starts running.

3. To specify a shutdown macro, select the check box **On shutdown macro**, and then select the macro you want to run when the HMI server stops running.

**Step 7: Set up the FactoryTalk View SE Client**

The FactoryTalk View SE Client provides a complete and secure run-time environment for a network station or local station application. For example, operators can use the client to:

- Load, view, and interact with multiple graphic displays from the HMI server.
- Manage alarm information.
- View trends.
- Adjust set points.
- Start and stop server components.

To run a network station or local station application, the FactoryTalk View SE Client must run on the same computer as the HMI server.
If you have already set up a FactoryTalk View SE Client file for the application, you can copy the file to the production computer. Otherwise, you can create a new client file.

Create a new FactoryTalk View SE Client file

FactoryTalk View SE Client configuration files specify the name of the application the client will connect to, the components that start when the connection is made, and how the client will behave at run time.

To create a new client file, use the FactoryTalk View SE Client Wizard. You can also use the wizard to modify or run an existing client file, or to remove a client from the list of available files.

Tip: It is not necessary to start the HMI server if you want to use the FactoryTalk View SE Client Wizard.

To create a new FactoryTalk View SE Client file:


2. In the FactoryTalk View SE Client Wizard, click New, and then follow the on-screen instructions. For details about options in the wizard, click Help.

   The client file is created with a .cli extension, in the location you specified.

Lock operators into the run-time environment

To lock operators into the FactoryTalk View SE Client at run time, for example, to prevent access to other programs on the computer, try one or more of the following methods:

- **Limit the ability to manipulate graphic displays**, by removing the title bar or minimize and maximize buttons from selected displays.

  To do this, in the Display Settings dialog box, clear the check boxes Title Bar, Minimize Button, and Maximize Button. For details, see Chapter 16, Creating graphic displays in the FactoryTalk View Site Edition User’s Guide.

- **Limit the ability to manipulate the client window**, by removing the title bar or minimize and maximize buttons from the client.

  To do this, in the FactoryTalk View SE Client wizard, clear the check boxes Show title bar, and Show system menu and close button. For details, click Help in the FactoryTalk View SE Client wizard.

- **Prevent switching to other applications**. To do this, in the FactoryTalk View SE Client wizard, select the check box, Disable switch to other applications. For details, click Help in the FactoryTalk View SE Client wizard.

- **Restrict access to the desktop**, using the DeskLock tool.
To open Desklock, on the desktop click **Start > All Programs > Rockwell Software > FactoryTalk View > Tools**, and then click **DeskLock**.

For details about using DeskLock, click **Help** within the tool.

**Note:** Do not enable DeskLock until you read the help for the tool and understand how it works. Otherwise, you could end up locking yourself out of the desktop.

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**Step 8: Run the FactoryTalk View SE Client**

Once the application is deployed, test it by running the FactoryTalk View SE Client.

To start the FactoryTalk View SE Client, or to change users while the client is running, the user logging on must have the necessary security permissions. If the user does not have the necessary permissions, the FactoryTalk View SE Client login dialog box opens, to let another user log on.

**To run an SE Client using the .cli file:**

Double-click the client setup file (.cli), in the default folder `C:\Users\Public\Public Documents\RSView Enterprise\SE\Client`.

**To run an SE Client from FactoryTalk View Studio:**

1. In FactoryTalk View Studio, on the Tools menu, click **Launch SE Client**.

2. In the **FactoryTalk View SE Client Wizard** dialog box, select the client configuration file from the list of most recently used files and click **Run**. To search for and select another file, click the browse button.

**To run an SE Client when Windows starts:**

1. Create a shortcut to the cli file (on the desktop, for example).

2. Move the shortcut to the Windows Startup folder.

For information about adding shortcuts to the Startup folder, see the Windows Help.

**Administer deployed applications**

To make minor changes to an application after it is deployed, use either FactoryTalk View Studio or the FactoryTalk View SE Administration Console. The SE Administration Console contains the following subset of editors.

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<tr>
<td>Add FactoryTalk users to an application.</td>
<td>Runtime Security</td>
</tr>
</tbody>
</table>
Set up security for commands and macros. | Secured Commands
---|---
Run FactoryTalk View commands. | Command Line
Change how HMI tag alarms are logged. | Alarm Setup
Change the paths of data log models. | Data Log Paths
Manage HMI tag alarm log files. | Alarm Log Setup
Import and export HMI tags. | Tag Import and Export Wizard

For details about options in these editors, click Help.

**To open a network station application in FactoryTalk View Studio:**

1. Select Start > All Programs > Rockwell Software > FactoryTalk View > FactoryTalk View Studio.

2. Select View Site Edition (Network Station), and then click Continue.

3. In the Existing tab, select the restored application’s name, and then click Open.
deploy local station applications

After you finish developing and testing a FactoryTalk View Site Edition local station application, you can deploy it to run in a live setting, such as the plant floor. Deploying a local station application involves installing all FactoryTalk View SE software components on the application’s host computer.

For details about installing the software, see Installing FactoryTalk View on page 35.

For details about the structure and content of local station applications, see Chapter 8, Working with local station applications in the FactoryTalk View Site Edition User’s Guide.

The checklist in this section summarizes the basic tasks involved in deploying a FactoryTalk View SE local station application. Use the checklist to guide you through the tasks you need to perform. Each task is described in detail in the rest of this chapter.

If appropriate, add or remove details to create a customized procedure that reflects the design and content of your FactoryTalk View application. For example, your application might include additional communications or database servers.

- Step 1: Move the local station application on page 77
- Step 2: Move data servers and change their properties on page 79
- Step 3: Specify OPC data server host computer names on page 80
- Step 4: Specify when HMI server components start or stop on page 80
- Step 5: Set up the FactoryTalk View SE Client on page 81
- Step 6: Run the FactoryTalk View SE Client on page 83 to test the application

Step 1: Move the local station application

There are two steps involved in moving a local station application: on the development computer, back up the application; then, on the production computer, restore the application archive.

You can perform both of these steps in the Application Manager tool. For details about options in the Application Manager, click Help in the tool.
To back up a local station application:

1. On the desktop, click **Start > All Programs > Rockwell Software > FactoryTalk View > Tools**, and then click **Application Manager**.

2. In the Application Manager, select **Site Edition (Local Station)**, and then click **Next**.

   **Tip:** The logged on user must have FactoryTalk administrative rights. If you receive a prompt to log on, check with your System Administrator.

3. Select the back up operation, and then follow the instructions in the Application Manager to complete the operation.

4. Copy the .apa file to the new (production) computer.

If you are restoring a local station application on a computer that contains a copy of the original application, restart the computer, then use the Application Manager to delete (or rename) the original application, before you begin the restore operation.

To restore a local station application:

1. On the production computer, on the desktop, click **Start > All Programs > Rockwell Software > FactoryTalk View > Tools**, and then click **Application Manager**.

2. Select **Site Edition (Local Station)**, and then click **Next**.

   **Tip:** To restore a local station application, the logged on user must have FactoryTalk administrative rights. If you receive a prompt to log on, check with your System Administrator.

3. Select the restore operation, and then follow the instructions in the Application Manager to complete the operation.

In FactoryTalk View Studio, in a local station application, the top-level System folder contains FactoryTalk Security information, including user accounts set up for all applications using the same FactoryTalk Local Directory (also called the Local Directory).

When you back up a local station application, this FactoryTalk system information is saved to the archive automatically. When you restore a local station application, you can choose whether to restore the system information with the application.
To restore FactoryTalk system information with the application:

In the Application Manager tool, after specifying the archive to restore, select the option, **Restore the FactoryTalk View SE (local station) application and FactoryTalk Local Directory**.

To complete the operation, the user logged on to the Application Manager must have FactoryTalk administrative rights at the Local Directory being restored.

A FactoryTalk View SE local station application can contain one RSLinx Enterprise data server, which must be located on the same computer as the application.

In addition, the local station application can contain one or more OPC data servers (RSLinx Classic, or some other OPC server), which can be located on remote computers.

After ensuring that the required communications software is installed on production computers, for each remote OPC data server you are deploying, move the configuration files to the production computer and specify the new host computer name.

**Tip:** For information about moving setup files for OPC data servers other than RSLinx Classic, see the product documentation for the OPC server.

After installing RSLinx Enterprise, RSLinx Classic, or some other OPC server software on the production computer, if necessary, you can move the data server’s setup files to the computer.

RSLinx Classic configuration files are not included when you back up an application. You have to back up, move, and restore the files manually.

If RSLinx Classic is installed on the development and production computers, you can use the RSLinx Classic Backup/Restore tool to back up and restore configuration files.

**Tip:** You can also restore RSLinx Classic configuration files from the Wizard Completed window of the RSLinx Classic software setup program.

### Step 2: Move data servers and change their properties

**To restore RSLinx Classic configurations:**

1. Copy the backup file (with .rsx extension) from the development computer and paste it into a location on the data server production computer.

2. On the production computer, from **Windows Start** menu, select All Programs > Rockwell Software > RSLinx > RSLinx Classic Backup Restore Utility.
3. In the RSLinx Backup/Restore tool, click Restore.

4. Find and select the backup file, and then click Open.

**Step 3: Specify OPC data server host computer names**

After moving RSLinx Classic configuration files to production computers, open the restored local station application, and in the Properties dialog box for each data server, specify the name of the server’s host computer.

**Tip:** Unlike RSLinx Classic data servers, you do not have to change the computer names of RSLinx Enterprise data servers. The RSLinx Enterprise data server in a local station application must be located on the same computer as the application, and is always named localhost.

For information about setting up other data server properties, click Help in the server’s Properties dialog box, or see the product documentation.

**Tip:** The first time you open an application after relocating a data server, if the server does not load, you should still be able to open the Properties dialog box and change the host computer name. After the computer name is updated, the server should load as expected.

**To change the RSLinx Classic server computer name:**

1. Open the restored application in the FactoryTalk Administration Console. To learn how to do this, see the previous task.

2. In the Explorer window, expand the name of the restored application, right-click the RSLinx Classic server’s name, and then click Properties.

3. In the General tab, in the field, Computer that will run the OPC server, type the name of the production computer, or click Browse to find and select the computer, and then click OK.

**Step 4: Specify when HMI server components start or stop**

In FactoryTalk View Studio, open the Properties dialog box for the HMI server in the application, to view the location of the HMI project files, the current number of displays in the application, and the maximum number of displays allowed.

You can add a description for the HMI server and, in the Components tab, select components that will start when the HMI server starts running.

**Tip:** In a local station application, the HMI server and the application have the same name. The name cannot be modified in the HMI server’s Properties dialog box.

**To open the HMI Server Properties dialog box:**

1. Click Start > All Programs > Rockwell Software, and then click FactoryTalk View Studio.

2. Select View Site Edition (Network Station), and then click Continue.
3. Click the **Existing** tab, select the network station application’s name, and then click **Open**.

4. In the Explorer window, right-click the HMI server’s name, and then click **Properties**.

Use the HMI Server Properties dialog box to specify which components in a local station application will start automatically, when the HMI server starts running.

In a network station or local station application, the HMI server loads and the specified components start running when the FactoryTalk View SE Client connects to the application. When the client stops running, the HMI server is unloaded, and the specified shutdown macro is run.

You can also start or stop the HMI server components manually. To do this, in the Components tab, click **Run Startup Components** and **Stop All Running Components**, respectively.

**To select HMI server startup and shutdown components:**

1. In the HMI Server Properties dialog box, click the **Components** tab.

2. To specify startup components, select the component check boxes, and then select the components you want to start automatically, when the HMI server starts running.

3. To specify a shutdown macro, select the check box **On shutdown macro**, and then select the macro you want to run when the HMI server stops running.

**How HMI server components start and stop**

The FactoryTalk View SE Client provides a complete and secure run-time environment for a network station or local station application. For example, operators can use the client to:

- Load, view, and interact with multiple graphic displays from the HMI server.
- Manage alarm information.
- View trends.
- Adjust set points.
- Start and stop server components.

To run a network station or local station application, the FactoryTalk View SE Client must run on the same computer as the HMI server.

**Step 5: Set up the FactoryTalk View SE Client**

To configure FactoryTalk View SE Client:

1. Open the FactoryTalk View SE Client.

2. Select the **Application Manager** tool.

3. Click **Add Application**.

4. Select the application and click **Open**.

5. Select the **Components** tab.

6. Specify the startup and shutdown components as required.

7. Close the dialog box.

8. Start the FactoryTalk View SE Client.

The FactoryTalk View SE Client allows operators to:

- Load and view multiple graphic displays.
- Manage alarm information.
- View trends.
- Adjust set points.
- Start and stop server components.

To configure FactoryTalk View SE Client, refer to the documentation provided with the software.
If you have already set up a FactoryTalk View SE Client file for the application, you can copy the file to the production computer. Otherwise, you can create a new client file.

**Create a new FactoryTalk View SE Client file**

FactoryTalk View SE Client configuration files specify the name of the application the client will connect to, the components that start when the connection is made, and how the client will behave at run time.

To create a new client file, use the FactoryTalk View SE Client Wizard. You can also use the wizard to modify or run an existing client file, or to remove a client from the list of available files.

**Tip:** It is not necessary to start the HMI server if you want to use the FactoryTalk View SE Client Wizard.

**To create a new FactoryTalk View SE Client file:**

1. On the desktop, select **Start** > **All Programs** > **Rockwell Software** > **FactoryTalk View** > **FactoryTalk View Site Edition Client**.

2. In the FactoryTalk View SE Client Wizard, click **New**, and then follow the on-screen instructions. For details about options in the wizard, click **Help**.

The client file is created with a .cli extension, in the location you specified.

**Lock operators into the run-time environment**

To lock operators into the FactoryTalk View SE Client at run time, for example, to prevent access to other programs on the computer, try one or more of the following methods:

- **Limit the ability to manipulate graphic displays**, by removing the title bar or minimize and maximize buttons from selected displays.

  To do this, in the Display Settings dialog box, clear the check boxes **Title Bar**, **Minimize Button**, and **Maximize Button**. For details, see Chapter 16, Creating graphic displays in the FactoryTalk View Site Edition User’s Guide.

- **Limit the ability to manipulate the client window**, by removing the title bar or minimize and maximize buttons from the client.

  To do this, in the FactoryTalk View SE Client wizard, clear the check boxes, **Show title bar**, and **Show system menu and close button**. For details, click **Help** in the FactoryTalk View SE Client wizard.

- **Prevent switching to other applications**. To do this, in the FactoryTalk View SE Client wizard, select the check box, **Disable switch to other applications**. For details, click **Help** in the FactoryTalk View SE Client wizard.

- **Restrict access to the desktop**, using the DeskLock tool.
To open Desklock, on the desktop click Start > All Programs > Rockwell Software > FactoryTalk View > Tools, and then click DeskLock.

For details about using DeskLock, click Help within the tool.

**Note:** Do not enable DeskLock until you read the help for the tool and understand how it works. Otherwise, you could end up locking yourself out of the desktop.

---

**Step 6: Run the FactoryTalk View SE Client**

Once the application is deployed, test it by running the FactoryTalk View SE Client.

**To run an SE Client using the .cli file:**

Double-click the client setup file (.cli), in the default folder C:\Users\Public\Public Documents\RSView Enterprise\SE\Client.

**To run an SE Client from FactoryTalk View Studio:**

1. In FactoryTalk View Studio, on the Tools menu, click Launch SE Client.

2. In the FactoryTalk View SE Client Wizard dialog box, select the client configuration file from the list of most recently used files and click Run. To search for and select another file, click the browse button.

**To run an SE Client when Windows starts:**

1. Create a shortcut to the cli file (on the desktop, for example).

2. Move the shortcut to the Windows Startup folder.

For information about adding shortcuts to the Startup folder, see the Windows Help

**Administer deployed applications**

To make minor changes to an application after it is deployed, use either FactoryTalk View Studio or the FactoryTalk View SE Administration Console. The SE Administration Console contains the following subset of editors.

<table>
<thead>
<tr>
<th>To do this in the SE Administration Console</th>
<th>Use this editor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change the properties of an HMI server.</td>
<td>HMI Server Properties</td>
</tr>
<tr>
<td>Change the properties of a data server.</td>
<td>Data Server Properties</td>
</tr>
<tr>
<td>Add FactoryTalk users to an application.</td>
<td>Runtime Security</td>
</tr>
<tr>
<td>Set up security for commands and macros.</td>
<td>Secured Commands</td>
</tr>
<tr>
<td>Run FactoryTalk View commands.</td>
<td>Command Line</td>
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<tr>
<td>Change how HMI tag alarms are logged.</td>
<td>Alarm Setup</td>
</tr>
<tr>
<td>Change the paths of data log models.</td>
<td>Data Log Paths</td>
</tr>
</tbody>
</table>
Deploy local station applications

<table>
<thead>
<tr>
<th>Manage HMI tag alarm log files.</th>
<th>Alarm Log Setup</th>
</tr>
</thead>
<tbody>
<tr>
<td>Import and export HMI tags.</td>
<td>Tag Import and Export Wizard</td>
</tr>
</tbody>
</table>

For details about options in these editors, click Help.

To open a local station application in FactoryTalk View Studio:

1. Click Start > All Programs > Rockwell Software > FactoryTalk View > FactoryTalk View Studio.
2. Select View Site Edition (Local Station), and then click Continue.
3. In the Existing tab, select the restored application’s name, and then click Open.
Upgrade operating network distributed applications

Upgrading the FactoryTalk View Site Edition software in an automation and control application involves two core tasks: uninstalling the existing software and then installing the new version.

After installing the new software version, you should be able to open a FactoryTalk View SE application in FactoryTalk View Studio, and then run the application in a FactoryTalk View SE Client without any further intervention.

Tip: Applications developed on versions 6.0 and earlier may need to be converted using the Legacy Tag Database Conversion utility. To start the utility, from Windows Start menu, select All Programs > Rockwell Software > FactoryTalk View > Tools, right-click Legacy Tag Database Conversion and select Run as administrator. For details about using the utility, click Help.

However, depending on the design, content, and complexity of your control system, you might have to perform additional tasks to support the upgrade, especially if you are upgrading FactoryTalk View SE in a production environment. The information in this chapter will help you safeguard the live application, while ensuring that the upgrade process is efficient and successful.

The upgrading steps vary depending on your application:

- Upgrade a non-redundant network distributed application on page 86
- Upgrade a redundant network distributed application on page 92

As there are many possible variations for this type of application, parts of the documented process might not apply directly to the application you are upgrading. If you have questions about architectural elements not covered in this chapter, for example, your application is more or less complex than the example provided, contact your local Rockwell Automation Sales office for assistance.
Note: Before installing FactoryTalk View applications or any supporting software, review Hardware, operating system, and domain information on page 23, and ensure that you have performed the tasks that are appropriate to the role and configuration of each application host computer.

Information to help you upgrade

You can also look for answers in other Rockwell Automation product documentation, and on the Rockwell Automation Web site. See Open the FactoryTalk View online manuals on page 10.

Tip: RSView Enterprise is the former name of the FactoryTalk View family of software products. If you are upgrading from a version of RSView, the information in this chapter still applies, even though it refers to FactoryTalk View as the previous product version.

Find out about features in the new product version

After upgrading all the software components in your deployed application, to find out about features in the new product version, see the product Release Notes.

- The FactoryTalk View installation DVD or installation package contains the Release Notes of products such as FactoryTalk View SE, ME, and RSLogix Classic.
- During installation, the Common Setup page shows links to the Release Notes of each product.
- The Contents tab of the FactoryTalk Help also contains the Release Notes of each product. To open it, after installation, select Start > All Programs > Rockwell Software > FactoryTalk Tools > FactoryTalk Help.

Upgrade a non-redundant network distributed application

Use the following checklist as a guideline for upgrading your application. Details about each step are provided in this chapter.

Part 1: Prepare for the upgrade

- Step 1: Prepare for the upgrade on page 87
- Step 2: Back up the deployed application on page 88

Part 2: Perform upgrade of software components

- Step 3: Shut down all client computers on page 89
- Step 4: Upgrade the FactoryTalk Directory server on page 89
- Step 5: Upgrade the HMI server on page 89
- Step 6: Upgrade the data server on page 90
- Step 7: Upgrade the engineering workstation on page 90
Step 8: Migrate the application on page 91
Step 9: Upgrade all run-time clients on page 92
Step 10: Test the migrated application on page 92

Example

The following illustration shows an example of a FactoryTalk View SE network distributed application without redundant servers.

In this example, **Workstation #1** is the name of the engineering workstation. Assume that:

- The FactoryTalk Directory server, HMI server, and data server are hosted on different computers.
- The Tag Alarm and Event server and HMI server are hosted on the same computer.

Use the following multi-step checklist as a guideline when you prepare for the upgrade. For details, see procedures that follow.

**Part 1: Prepare for the upgrade**

**Step 1: Prepare for the upgrade**

- Have the FactoryTalk View installation DVD or installation package on hand
- Log on with administrative rights on page 87
- Record the names and passwords of administrative users on page 88
- Perform set-up tasks on application computers on page 88

**Log on with administrative rights**

To perform certain tasks, the user performing the upgrade must have administrative rights in Windows and at the FactoryTalk Network Directory.
Windows administrative rights are required to install FactoryTalk View and supporting software because the Setup Wizard creates program folders and modifies registry entries.

FactoryTalk administrative rights are required to log on to the FactoryTalk Network Directory, for example, when you use the FactoryTalk Directory Server Location Utility.

To open the utility, you must log on as a FactoryTalk administrator on the local computer. To specify a remote Network Directory location, you must also have administrative rights on the remote computer.

FactoryTalk administrative rights are also required to back up and restore FactoryTalk View SE applications.

**Record the names and passwords of administrative users**

Before backing up the deployed application, ensure that you have recorded the user names and passwords of users that belong to the FactoryTalk administrators group.

Only members of the FactoryTalk administrators group can add, remove, or modify FactoryTalk user accounts, if this is necessary after restoring a backed-up application.

**Perform set-up tasks on application computers**

Before upgrading FactoryTalk View SE, review the chapter [Hardware, operating system, and domain information](#) on page 23. It contains information about tasks you can perform on application computers, to ensure that FactoryTalk View SE runs smoothly after it is installed. It also contains information about hardware and software requirements, and application limits.

**Step 2: Back up the deployed application**

Before backing up the deployed application, ensure that the most recent application data is available for the upgrade at the FactoryTalk Network Directory.

Use the **Distributed Application Manager** tool to back up the application. The backup archive has an `.APB` extension, and includes all FactoryTalk Directory data, such as accounts, passwords, policies and security settings. It also includes all application contents like application configurations, HMI servers, data servers, and tag Alarm and Event servers.

**Tip:** RSLinx Classic configuration files are not included when you back up a FactoryTalk View SE application. You need to back up the RSLinx Classic configuration files before upgrading. For instructions, see [Back up and restore RSLinx Classic configurations](#) on page 58.

**To back up the application:**

1. On the HMI server, select Start > All Programs > Rockwell Software > FactoryTalk View > Tools > Distributed Application Manager.
Upgrade operating network distributed applications

2. In the Create a Backup tab, select your application and follow the wizard to back up the application. For more instructions, see Distributed Application Manager Help.

Part 2: Perform upgrade of software components

Step 3: Shut down all client computers

To disconnect the clients from the servers, shut down all run-time client computers, server computers, and Workstation #1.

Step 4: Upgrade the FactoryTalk Directory server

1. On the FactoryTalk Directory computer, close all open Windows programs.

2. Place the FactoryTalk View installation DVD in the computer’s DVD drive, or double-click Setup.exe within the installation package.

   Tip: If the DVD does not start automatically, run D:\Setup.exe, where D: is the drive containing the DVD.


   Tip: If you host the FactoryTalk Network Directory, HMI server, and data server on the same computer, select Studio Enterprise.

4. Follow the instructions to finish the installation. For more information, see the chapter Install FactoryTalk View on page 35.

5. After installation, install any necessary product updates. For instructions, see Install product updates on page 112.

   Tip: If you host the FactoryTalk Network Directory, HMI server, and data server on the same computer, skip to Step 7: Upgrade the engineering workstation on page 90.

Step 5: Upgrade the HMI server

1. On the HMI server computer, close all open Windows programs.

2. Place the FactoryTalk View installation DVD in the computer’s DVD drive, or double-click Setup.exe within the installation package.

   Tip: If the DVD does not start automatically, run D:\Setup.exe, where D: is the drive containing the DVD.

4. If you have FactoryTalk Historian Management Tools installed, you need to manually uninstall the Management Tools Suite and the System Management Tools before installing FactoryTalk Historian Connectivity. For more information, see Rockwell Automation Answer ID 618193 and the product documentation.

5. Follow the instructions to finish the installation. For more information, see the chapter Install FactoryTalk View on page 35.

6. After installation, install any necessary product updates. For instructions, see Install product updates on page 112.

**Step 6: Upgrade the data server**

1. On the RSLinx Enterprise data server computer, close all open Windows programs.

2. Place the FactoryTalk View installation DVD in the computer’s DVD drive, or double-click Setup.exe within the installation package.

   **Tip:** If the DVD does not start automatically, run D:\Setup.exe, where D: is the drive containing the DVD.

3. On the Welcome page, select Stand-alone RSLinx Enterprise Server and click Next.

4. Follow the instructions to finish the installation. For more information, see the chapter Install FactoryTalk View on page 35.

5. After installation, install any necessary product updates. For instructions, see Install product updates on page 112.

**Step 7: Upgrade the engineering workstation**

1. On the engineering workstation computer, close all open Windows programs.

2. Place the FactoryTalk View installation DVD in the computer’s DVD drive, or double-click Setup.exe within the installation package.

   **Tip:** If the DVD does not start automatically, run D:\Setup.exe, where D: is the drive containing the DVD.

3. On the Welcome page, select Studio Enterprise and click Next.

4. If you have FactoryTalk Historian Management Tools installed, you need to manually uninstall the Management Tools Suite and the System Management Tools before installing FactoryTalk Historian Connectivity. For more information, see Rockwell Automation Answer ID 618193 and the product documentation.

5. Follow the instructions to finish the installation. For more information, see the chapter Install FactoryTalk View on page 35.
6. After installation, install any necessary product updates. For instructions, see Install product updates on page 112.

**Step 8: Migrate the application**

Use the following checklist as a guideline when you migrate the FactoryTalk View SE application:

- **Open the application in FactoryTalk View Studio** on page 91
- **Verify RSLinx Enterprise shortcuts** on page 91
- **Test the migrated application** on page 91

**Open the application in FactoryTalk View Studio**

To migrate the application, open it in the new version of FactoryTalk View Studio installed on upgraded **Workstation #1**.

To open the application:

1. On **Workstation #1**, select Start > All Programs > Rockwell Software > FactoryTalk View > FactoryTalk View Studio.

2. Select **View Site Edition (Network Distributed)** and then click **Continue**.

3. In the **Existing** tab, click the application name, select an application language, and then click **Open**.

4. If prompted to convert the application the new version, click **OK**.

5. Wait until the HMI server and all project components in the application are loaded, and then leave the application open in FactoryTalk View Studio.

**Verify RSLinx Enterprise shortcuts**

To confirm that data communications are set up correctly in the migrated application, verify that RSLinx Enterprise shortcuts point at the correct devices.

To verify RSLinx Enterprise shortcuts:

1. In FactoryTalk View Studio, expand the data server **RSLinx Enterprise**, and then double-click **Communications Setup**.

2. In the **Communications Setup** editor, select each configured RSLinx Enterprise shortcut, and ensure that it points at the correct device.

3. Save the configuration and close the **Communications Setup** editor.

**Test the migrated application**

To test the migrated application, run the application on **Workstation #1**.

1. On **Workstation #1**, start a FactoryTalk View SE Client configuration.

2. Ensure that data communications are functioning as expected.
Step 9: Upgrade all run-time clients

If you already have the Client Install Portal feature installed on the HMI server, you can upgrade the clients through a web browser. For detailed instructions, see Install SE clients in a distributed system on page 47. Otherwise, you can use the installation DVD or installation package. Follow the instructions below.

1. On the client computers, close all software programs that are currently running.

2. Place the FactoryTalk View installation DVD in the computer’s DVD drive, or double-click Setup.exe within the installation package.

   **Tip:** If the DVD does not start automatically, run D:\Setup.exe, where D: is the drive containing the DVD.

3. On the **Welcome** page, select **Site Edition Client** and click **Next**.

4. Follow the instructions to finish the installation. For more information, see the chapter Install FactoryTalk View on page 35.

After installation, install any necessary product updates. For instructions, see Install product updates on page 112.

Step 10: Test the migrated application

To test the migrated FactoryTalk View SE application, perform these tasks:

- Run the migrated application on upgraded clients on page 92
- Verify that the system is functioning as expected on page 92

Run the migrated application on upgraded clients

On each of the upgraded run-time client computers, run the existing FactoryTalk View SE Client configuration file (.cli).

Verify that the system is functioning as expected

After the application starts running on the upgraded client computers, verify that display navigation, object animation, communications, alarming (if configured), and other applications features are functioning as expected.

Upgrade a redundant network distributed application

Upgrading a redundant system can be done in parts, allowing you to keep your system running without redundancy temporarily while you upgrade. During an upgrade, a temporary system can help you with verification and validation.

Use the following multi-step checklist as a guideline for upgrading your redundant system. Details about each step are provided in this chapter.

Part 1: Prepare for the upgrade

- Step 1: Prepare for the upgrade on page 94
- Step 2: Back up the application on Server #1 on page 95
Part 2: Set up a separate system and perform a partial upgrade

- Step 3: Set up a temporary upgrade system on page 96
- Step 4: Upgrade Server #2 on page 98
- Step 5: Upgrade Workstation #1 on page 99
- Step 6: Migrate the application on page 99
- Step 7: Upgrade selected run-time clients on page 100
- Step 8: Test the migrated application on page 101

Part 3: Upgrade remaining computers and restore redundancy

- Step 9: Upgrade remaining client computers on page 102
- Step 10: Upgrade Server #1 on page 103
- Step 11: Restore redundancy and finish upgrading on page 104

**Example**

The following illustration shows an example of a FactoryTalk View SE network distributed application with redundant servers.

In this example, **Server #1** is the name of the primary server computer, **Server #2** is the name of the secondary server computer, and **Workstation #1** is the name of the engineering workstation. Assume that:

- The FactoryTalk Directory server, primary data server, primary HMI server, and primary Tag Alarm and Event server are located on **Server #1**.
- The secondary data server, secondary HMI server, and secondary Tag Alarm and Event server are located on **Server #2**.
Part 1: Prepare for the upgrade

Step 1: Prepare for the upgrade

Use the following multi-step checklist as a guideline when you prepare for the upgrade. For details, see the procedures that follow.

- Have the FactoryTalk View installation DVD or installation package on hand
- Log on with administrative rights on page 94
- Record the names and passwords of administrative users on page 94
- Perform set-up tasks on application computers on page 94
- Ensure that the latest application files are on the primary server on page 94

Log on with administrative rights

To perform certain tasks, the user performing the upgrade must have administrative rights in Windows and at the FactoryTalk Network Directory.

Windows administrative rights are required to install FactoryTalk View and supporting software because the Setup Wizard creates program folders and modifies registry entries.

FactoryTalk administrative rights are required to log on to the FactoryTalk Network Directory, for example, when you use the FactoryTalk Directory Server Location Utility.

To open the utility, you must log on as a FactoryTalk administrator on the local computer. To specify a remote Network Directory location, you must also have administrative rights on the remote computer.

FactoryTalk administrative rights are also required to back up and restore FactoryTalk View SE applications.

Record the names and passwords of administrative users

Before backing up the deployed application, ensure that you have recorded the user names and passwords of users that belong to the FactoryTalk administrators group.

Only members of the FactoryTalk administrators group can add, remove, or modify FactoryTalk user accounts, if this is necessary after restoring a backed-up application.

Perform set-up tasks on application computers

Before upgrading FactoryTalk View SE, review the chapter Hardware, operating system, and domain information on page 23. It contains information about tasks you can perform on application computers, to ensure that FactoryTalk View SE runs smoothly after it is installed. It also contains information about hardware and software requirements, and application limits.

Ensure that the latest application files are on the primary server

During the upgrade described in this chapter, the application and HMI project files backed up on the primary server are restored on the secondary server, and then migrated in FactoryTalk View Studio on the upgraded engineering workstation.
To ensure that you migrate and re-deploy the most recent application, ensure that the application and HMI project files you back up initially, on the primary server, are the most recent application files.

Before backing up the deployed application, ensure that the most recent application data is available for the upgrade on Server #1.

Use the Distributed Application Manager tool to back up the application. The backup archive has an .APB extension, and includes all FactoryTalk Directory data, such as accounts, passwords, policies and security settings. It also includes all application contents like application configurations, HMI servers, data servers, and tag Alarm and Event servers.

**Tip:** RSLinx Classic configuration files are not included when you back up a FactoryTalk View SE application. You need to back up the RSLinx Classic configuration files before upgrading. For instructions, see Back up and restore RSLinx Classic configurations on page 58.

**To back up the application:**

1. On Server #1, select Start > All Programs > Rockwell Software > FactoryTalk View > Tools > Distributed Application Manager.

   **Tip:** The logged on user must have the Backup and restore directory contents permission. For more information, see FactoryTalk Security Help or check with your System Administrator.

2. In the Create a Backup tab, select your application and specify the Host Machine as Server #1.

3. Follow the wizard to back up the application on Server #1. For more instructions, see Distributed Application Manager Help.

During this part, a temporary system is set up to test a partial upgrade that involves Server #2, Workstation #1, and selected run-time clients. For the test, Server #2 is set up to function as the primary server.
Tip: It is recommended that you upgrade the software on some application clients, confirm that the upgraded application is running as expected, and then upgrade the software on the remaining clients. The number of clients to upgrade initially is left to your discretion.

As part of the process, the original HMI project and application files that were backed up on Server #1 are restored on Server #2. The restored application will be migrated later, after Workstation #1 is upgraded.

Note: To avoid introducing incompatible software component versions into a deployed production system, be sure to restore the HMI project and application files before upgrading any software.

To set up a temporary system so that you can test a partial upgrade, perform the tasks below. For details, see the procedures that follow.

- Disable HMI and data server redundancy in the original application on page 97
- Copy the archive file to Server #2 on page 97
- Specify Server #2 as the Network Directory location on page 97
- Restore the application on Server #2 as the primary server on page 97
- Specify Server #2 as the Network Directory location for Workstation #1 on page 98
- Disable redundancy on Server #2 on page 98
- Disable alarm and event history logging on page 98
Disable HMI and data server redundancy in the original application

To ensure that Server #2 can be detached from the application for upgrading, open the application in FactoryTalk View Studio, and disable redundancy for the HMI server and data server.

**To disable HMI and data server redundancy:**

1. On Workstation #1, open the application in FactoryTalk View Studio.
2. In the Explorer window, right-click the HMI server and select Properties.
3. In the Redundancy tab, clear the check box Provide redundancy using a secondary server, and click OK.
4. In the Explorer window, right-click the data server RSLinx Enterprise and select Properties.
5. In the Redundancy tab, clear the check box Provide redundancy using a secondary server, and click OK.

Copy the archive file to Server #2

Move the archive file (*.apb) created on Server #1 to Server #2.

Specify Server #2 as the Network Directory location

1. On Server #2, select Start > All Programs > Rockwell Software > FactoryTalk Tools > Specify FactoryTalk Directory Location.

   **Tip:** To use the utility, you have to log on as an administrator on the local computer.

2. Click the Browse button besides the field Computer hosting directory server.

3. In the FactoryTalk Directory Server Configuration dialog box, select This computer and click OK.

   **Tip:** To change the Network Directory location, you have to log on as an administrator on the new Network Directory computer (local or remote).

4. Click OK and then restart Server #2.

Restore the application on Server #2 as the primary server

1. On Server #2, select Start > All Programs > Rockwell Software > FactoryTalk View > Tools > Distributed Application Manager.

   **Tip:** The logged on user must have the Backup and restore directory contents permission. For more information, see FactoryTalk Security Help or check with your System Administrator.

2. In the Restore an Archive tab, specify the restore scope as Restore application, with FactoryTalk Directory and the Primary Host as Server #2.
3. Follow the wizard to restore the application. For more instructions, see Distributed Application Manager Help.

Specify Server #2 as the Network Directory location for Workstation #1

1. On Workstation #1, select Start > All Programs > Rockwell Software > FactoryTalk Tools > Specify FactoryTalk Directory Location.

   Tip: To use the utility, you have to log on as an administrator on the local computer.

2. Click the Browse button besides the field Computer hosting directory server.

3. In the FactoryTalk Directory Server Configuration dialog box, select Remote computer, type Server #2 and click OK.

   Tip: To change the Network Directory location, you have to log on as an administrator on the new Network Directory computer (local or remote).

4. Click OK and then restart Workstation #1.

Disable redundancy on Server #2

1. On Workstation #1, open the restored application in FactoryTalk View Studio.

2. In the Explorer window, right-click the HMI server and select Properties.

3. In the Redundancy tab, clear the check box Provide redundancy using a secondary server, and click OK.

4. In the Explorer window, right-click the data server RSLinx Enterprise and select Properties.

5. In the Redundancy tab, clear the check box Provide redundancy using a secondary server, and click OK.

Disable alarm and event history logging

After you restore the application, the alarm and event history logging is also enabled on Server #2. It is recommended that you disable the history logging. Follow the steps below.

1. On Workstation #1, open the restored application in FactoryTalk View Studio.

2. In the Explorer window, right-click the Tag Alarm and Event server and select Properties.

3. In the Priorities and History tab, clear the Enable history check box and click OK.

Step 4: Upgrade Server #2

To upgrade the software components, install FactoryTalk View SE and any
necessary products updates on Server #2.

1. On Server #2, close all open Windows programs.

2. Place the FactoryTalk View installation DVD in the computer’s DVD drive, or double-click Setup.exe within the installation package.

   Tip: If the DVD does not start automatically, run D:\Setup.exe, where D: is the drive containing the DVD.


4. Follow the instructions to finish the installation. For more information, see the chapter Install FactoryTalk View on page 35.

5. After installation, install any necessary product updates. For instructions, see Install product updates on page 112.

**Step 5: Upgrade Workstation #1**

To upgrade the software components, install FactoryTalk View Studio and any necessary products updates on Workstation #1.

1. On Workstation #1, close all open Windows programs.

2. Place the FactoryTalk View installation DVD in the computer’s DVD drive, or double-click Setup.exe within the installation package.

   Tip: If the DVD does not start automatically, run D:\Setup.exe, where D: is the drive containing the DVD.

3. On the Welcome page, select Studio Enterprise and click Next.

4. Follow the instructions to finish the installation. For more information, see the chapter Install FactoryTalk View on page 35.

5. After installation, install any necessary product updates. For instructions, see Install product updates on page 112.

**Step 6: Migrate the application**

To migrate the FactoryTalk View SE application that was restored on Server #2, perform these tasks:

- Open the application in FactoryTalk View Studio on page 99
- Verify RSLinx Enterprise shortcuts on page 100
- Test the migrated application on page 100

**Open the application in FactoryTalk View Studio**

To migrate the application, open it in the new version of FactoryTalk View Studio installed on upgraded Workstation #1.
To open the application:

1. On Workstation #1, select Start > All Programs > Rockwell Software > FactoryTalk View > FactoryTalk View Studio.

2. Select View Site Edition (Network Distributed) and then click Continue.

3. In the Existing tab, click the application name, select an application language, and then click Open.

4. If prompted to convert the application the new version, click OK.

5. Wait until the HMI server and all project components in the application are loaded, and then leave the application open in FactoryTalk View Studio.

Verify RSLinx Enterprise shortcuts

To confirm that data communications are set up correctly in the migrated application, verify that RSLinx Enterprise shortcuts point at the correct devices.

To verify RSLinx Enterprise shortcuts:

1. In FactoryTalk View Studio, expand the data server RSLinx Enterprise, and then double-click Communications Setup.

2. In the Communications Setup editor, select each configured RSLinx Enterprise shortcut, and ensure that it points at the correct device.

3. Save the configuration and close the Communications Setup editor.

Test the migrated application

To test the migrated application, run the application on Workstation #1.

1. On Workstation #1, start a FactoryTalk View SE Client configuration.

2. Ensure that data communications are functioning as expected.

Step 7: Upgrade selected run-time clients

To upgrade the software components, install FactoryTalk View SE Client and any necessary products updates on the selected run-time clients. Perform these tasks on each client computer. For details, see the procedures that follow.

- Install FactoryTalk View SE Client on page 100

- Specify Server #2 as the Network Directory location on client computers on page 101

Install FactoryTalk View SE Client

If you already have the Client Install Portal feature installed on the HMI server, you can upgrade the clients through a web browser. For detailed instructions, see Install SE clients in a distributed system on page 47. Otherwise, you can use the installation DVD or installation package. Follow the instructions below.
1. On the client computers, close all software programs that are currently running.

2. Place the FactoryTalk View installation DVD in the computer’s DVD drive, or double-click Setup.exe within the installation package.

   **Tip:** If the DVD does not start automatically, run D:\Setup.exe, where D: is the drive containing the DVD.

3. On the **Welcome** page, select **Site Edition Client** and click **Next**.

4. Follow the instructions to finish the installation. For more information, see the chapter Install FactoryTalk View on page 35.

5. After installation, install any necessary product updates. For instructions, see Install product updates on page 112.

After upgrading the software on the client computer, specify **Server #2** as the Network Directory location.

**Specify Server #2 as the Network Directory location on client computers**

**To specify Server #2 as the Network Directory:**

1. On each of the client computers, select **Start > All Programs > Rockwell Software > FactoryTalk Tools > Specify FactoryTalk Directory Location**.

   **Tip:** To use the utility, you have to log on as an administrator on the local computer.

2. Click the **Browse** button besides the field **Computer hosting directory server**.

3. In the **FactoryTalk Directory Server Configuration** dialog box, select **Remote computer**, type **Server #2** and click **OK**.

   **Tip:** To change the Network Directory location, you have to log on as an administrator on the new Network Directory computer (local or remote).

4. Click **OK** and then restart the client computer.

**Step 8: Test the migrated application**

To test the migrated application before upgrading remaining application computers, perform these tasks:

- **Start Server #2 and wait for it to finish starting** on page 102
- **Run the migrated application on upgraded clients** on page 102
- **Verify that the system is functioning as expected** on page 102
Start Server #2 and wait for it to finish starting

If Server #2 is not already started, start the server and wait for the server to finish starting.

To confirm that Server #2 has finished starting:

1. On Server #2, select Start > All Programs > Rockwell Software > FactoryTalk Tools > Diagnostics Viewer.
2. In the FactoryTalk Diagnostics Viewer, check for the following Diagnostics message:

   The HMI Server <ApplicationName>//Server #2 is the active server.

   Tip: To find a message faster in the Diagnostics Viewer, on the View menu, click Options. Then, in the Filter tab, create a Message filter with one or more keywords from the message.

Run the migrated application on upgraded clients

On each of the upgraded run-time client computers, run the existing FactoryTalk View SE Client configuration file (.cli).

Verify that the system is functioning as expected

After the application starts running on the upgraded client computers, verify that display navigation, object animation, communications, alarming (if configured), and other applications features are functioning as expected.

Part 3: Upgrade remaining clients and restore redundancy

Step 9: Upgrade remaining client computers

This part involves upgrading the remaining run-time clients and Server #1, and restoring the redundancy. After upgrading, Server #2 becomes the primary server and Server #1 becomes secondary.

After testing the partially upgraded system, on the remaining client computers, install FactoryTalk View SE Client and point at Server #2 as the Network Directory. Perform these tasks:

- Install FactoryTalk View SE Client on page 100
- Specify Server #2 as the Network Directory for remaining clients on page 101

Install FactoryTalk View SE Client

If you already have the Client Install Portal feature installed on the HMI server, you can upgrade the clients through a web browser. For detailed instructions, see Install SE clients in a distributed system on page 47. Otherwise, you can use the installation DVD or installation package. Follow the instructions below.

1. On the client computers, close all software programs that are currently running.
2. Place the FactoryTalk View installation DVD in the computer’s DVD drive, or double-click Setup.exe within the installation package.
Specifying Server #2 as the Network Directory location on client computers

After upgrading the software on the client computer, specify Server #2 as the Network Directory location.

To specify Server #2 as the Network Directory:

1. On each of the client computers, select Start > All Programs > Rockwell Software > FactoryTalk Tools > Specify FactoryTalk Directory Location.

   **Tip:** To use the utility, you have to log on as an administrator on the local computer.

2. Click the Browse button besides the field Computer hosting directory server.

3. In the FactoryTalk Directory Server Configuration dialog box, select Remote computer, type Server #2 and click OK.

   **Tip:** To change the Network Directory location, you have to log on as an administrator on the new Network Directory computer (local or remote).

4. Click OK and then restart the client computer.

Step 10: Upgrade Server #1

To upgrade FactoryTalk View SE and supporting software on Server #1, install FactoryTalk View SE Server and set up Server #1 to point at Server #2. Perform these tasks:

- Install FactoryTalk View SE Server on page 103
- Specify Server #2 as the Network Directory for Server #1 on page 104

1. On Server #1, close all open Windows programs.

2. Place the FactoryTalk View installation DVD in the computer’s DVD drive, or double-click Setup.exe within the installation package.
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Tip: If the DVD does not start automatically, run D:\Setup.exe, where D: is the drive containing the DVD.


4. Follow the instructions to finish the installation. For more information, see the chapter Install FactoryTalk View on page 35.

5. After installation, install any necessary product updates. For instructions, see Install product updates on page 112.

Specify Server #2 as the Network Directory for Server #1

1. On Server #1, select Start > All Programs > Rockwell Software > FactoryTalk Tools > Specify FactoryTalk Directory Location.

Tip: To use the utility, you have to log on as an administrator on the local computer.

2. Click the Browse button beside the field Computer hosting directory server.

3. In the FactoryTalk Directory Server Configuration dialog box, select Remote computer, type Server #2, and then click OK.

Tip: To change the Network Directory location, you have to log on as an administrator on the new Network Directory computer (local or remote). In this case, the new location is remote.

4. Click OK again, and then restart Server #1.

Step 11: Restore redundancy and finish upgrading

Before finishing the upgrade, you need to enable the redundancy and check the server status. If the status is not right, restart Server #1 and Server #2. Perform the following tasks:

- Enable HMI and data server redundancy on page 104
- Enable alarm and event history logging on page 105
- Confirm the status of primary and secondary servers on page 105
- Start all run-time clients on page 105

Enable HMI and data server redundancy

1. On Workstation #1, open the application in FactoryTalk View Studio.

2. In the Explorer window, right-click the HMI server and select Properties.

3. In the Redundancy tab, select the check box Provide redundancy using a secondary server.

4. Under the Secondary Server area, type Server #1 and click OK.
5. In the Explorer window, right-click the data server **RSLinx Enterprise** and select **Properties**.

6. In the **Redundancy** tab, select the check box **Provide redundancy using a secondary server**.

7. Under the **Computer running secondary server** field, type **Server #1** and click **OK**.

---

### Enable alarm and event history logging

If the alarm and event history logging is already disabled on **Server #2**, follow the steps below to enable the history logging.

1. On **Workstation #1**, open the restored application in FactoryTalk View Studio.

2. In the Explorer window, right-click the Tag Alarm and Event server and select **Properties**.

3. In the **Priorities and History** tab, select the **Enable history** check box, select the database and click **OK**.

---

### Confirm the status of primary and secondary servers

On **Workstation #1**, in FactoryTalk View Studio, right-click the HMI server and then select **Server Status**.

In the **Server Status** dialog box:

- **Server #2** and **Active** status are displayed in the fields **Primary server** and **Primary status** respectively.
- **Server #1** and **Standby** status are displayed in the fields **Secondary server** and **Secondary status** respectively.

**Tip:** To switch the Active server to **Server #1**, click **Switchover**.

---

### Start all run-time clients

To ensure that the entire, upgraded application is functioning as expected, run the existing FactoryTalk View SE Client configuration file on each run-time client computer.
## FactoryTalk tools and utilities

### FactoryTalk View tools

To run the following tool, select **Start** > **All Programs** > **Rockwell Software** > **FactoryTalk View** > **Uninstall FactoryTalk View**.

- **Uninstall FactoryTalk View** is a utility for uninstalling FactoryTalk View components that are already installed on your computer. It does not uninstall components, like RSLinx Classic and FactoryTalk Activation Manager, that are shared with other products. You need to manually uninstall them in Control Panel.

You can also choose to remove all FactoryTalk View application files, for example, archives and HMI project files.

To run the following set of tools, select **Start** > **All Programs** > **Rockwell Software** > **FactoryTalk View** > **Tools**, and then click the tool you want to run.

- **Alarm Migration** is software to migrate traditional HMI alarms to FactoryTalk Alarms and Events tag-based alarms.

- **Application Documenter** is a stand-alone utility that provides detailed information on FactoryTalk View SE and ME applications. This utility is a browser that allows you to view the contents of the application’s components and the tags used in these components. You can also print and export the information.

- **Application Manager** is software for renaming, copying, deleting, backing up, and restoring FactoryTalk View SE Station and FactoryTalk View ME applications.

For FactoryTalk View SE network applications, use the Application Manager to rename and delete an application only.

- **DeskLock** is software that prevents users of FactoryTalk View SE Client and FactoryTalk View ME from gaining access to the Windows desktop and system keys.

- **Distributed Application Manager** is software to back up or restore network distributed applications within a single tool at a time.

- **FactoryTalk View File Viewer** is software to view and save log files like SE datalog files, ME datalog files, ME alarm log files, dBASE file, and ME RecipePlus files.
• **FactoryTalk View SE Cache Management Tool** is software to manage the temporary files of HMI Server components.

• **FactoryTalk View SE Alternate Website Setup** is software for setting up secure access to application components under IIS (Internet Information Services).

• **FTVIEWUSER Account Reset** is a utility for changing the FTVIEWUSER account password or resetting the account.

• **HMI Server Backup and Restore** is a utility for backing up FactoryTalk View SE HMI servers while they are running. Use this utility when backing up or restoring a stand-alone system, or when deploying a distributed system from one set of computers to another.

• **Legacy Tag Database Conversion Utility** is software for converting your legacy tag database (before View 6.0) to a new format to work with Microsoft SQL database.

• **SE HMI Tag Alarm Log Setup** is software for setting up HMI tag alarm logging.

• **SE HMI Tag Alarm Log Viewer** is software for viewing the contents of HMI tag alarm log files.

• **SE Service Manager** is a tool that allows you to stop or start the FactoryTalk View HMI Service manually on the computer.

• **Tag Import and Export Wizard** is software for importing or exporting the FactoryTalk View SE Server’s tag database.

To run the following tool, select **Start > All Programs > Rockwell Software > FactoryTalk Alarms and Events**, and then click the tool you want to run.

• **Database Update Utility** is a utility to merge the ConditionEvent and TrackingEvent tables into the AllEvent table in the same database.

To run the following set of tools, select **Start > All Programs > Rockwell Software > FactoryTalk Tools**, and then click the tool you want to run.

• **Diagnostics Counter Monitor** is software to check the status of tags and to monitor the runtime values of counters and strings that are made available by network clients for diagnostic purposes.

• **Diagnostics Viewer** is software for viewing the contents of FactoryTalk Diagnostics logs, to help with troubleshooting the system.

• **FactoryTalk Directory Configuration Wizard** is software for setting up the FactoryTalk Network Directory or Local Directory on the computer.

• **Import RSSecurity Configuration** is software for importing RSSecurity setup information to FactoryTalk Security.
- **Log On to FactoryTalk** is software for logging users on and off the FactoryTalk Directory.
- **Rockwell Software Data Client** is diagnostic software for testing client and server data connections in an application.
- **RSSecurity Emulator Install** is software for installing the RSSecurity Emulator, which emulates an RSSecurity Server for legacy products.
- **Specify FactoryTalk Directory Location** is software for specifying which computer on the network contains the FactoryTalk Network Directory service.
- **Windows Firewall Configuration Utility** is software for configuring firewall settings for FactoryTalk View.
Appendix B

Common upgrade procedures

This section contains notes, common procedures and information from the Rockwell Automation Knowledgebase that you may find helpful during installation of FactoryTalk View products.

Procedures in this section are:

- Recreate SQL Server 2008 R2 Express instance on page 111.
- Install product updates on page 112.

Recreate SQL Server 2008 R2 Express instance

SQL Server 2008 R2 Express instance `FTVIEWx64TagDB` is created to store all the FactoryTalk View SE Tags and HMI Alarms data, which HMI Server and View Studio will access. You need to recreate SQL Server 2008 R2 Express instance `FTVIEWx64TagDB` manually under the following cases:

- For some reason you need to uninstall SQL Server 2008 R2 Express instance `FTVIEWx64TagDB` and reinstall it.
- On a computer that has had only the FactoryTalk View SE Client installed previously.

A message shows up asking the user to recreate the SQL server instance if user has not done so.

Tip: If you are installing FactoryTalk View with an existing SQL server, see Rockwell Automation Knowledgebase Answer ID 463910.

To recreate SQL Server 2008 R2 Express instance:

1. If necessary, close all open Windows programs, and then place the FactoryTalk View Site Edition DVD in the computer’s DVD drive.

2. Locate and run
   
   D:\Redist\SQLServerEXPR_2008R2SP2VS2103\SQLServerInstall.exe
   
   where D:\ is the drive containing the DVD.

3. Input and confirm a password for the SA account in the SQL Server Install window, and then click OK. Click Guidelines for quick reference of strong password guidelines or see Strong password guidelines on page 116.
4. To finish installing the software, follow the instructions in the wizard.

**Install product updates**

After installing FactoryTalk View SE, you should locate and install patches for the software products on your system. To locate patches, search the Rockwell Automation Knowledgebase for *Patch TOCs* (Tables of Contents). The TOCs contain lists of all available patches for your software. Go to [http://rockwellautomation.custhelp.com](http://rockwellautomation.custhelp.com) and select the *Search Knowledgebase* tab.

A Patch TOC describes updates released for a particular product and version, and provides instructions for downloading and installing the updates on computers where the software is installed.

**To find Patch TOCs in the Rockwell Automation Knowledgebase:**

1. In your Web browser address bar, type [www.rockwellautomation.custhelp.com](http://www.rockwellautomation.custhelp.com), then press Enter.

2. On the Rockwell Automation Support Center page, click the down arrow on the Search Knowledgebase tab. Select *By Product*. 
3. Scroll down to Software and click on FactoryTalk View SE. In the Search box, type Patch TOC and click Search.

In the search results, look for Patch TOCs related to all the products you installed from the FactoryTalk View Site Edition DVD. If necessary, conduct additional searches for other newly-installed applications, including:

- SE Client
- SE Server
- SE Station
- Studio Enterprise
- FactoryTalk Services Platform
- FactoryTalk Alarms and Events
- RSLinx Enterprise
- RSLinx Classic
Appendix C

Install Microsoft SQL Server

FactoryTalk View SE tag database supports the following editions:

- SQL Server 2008 R2 Express (32-bit or 64-bit)
- SQL Server 2008 R2 Standard (32-bit or 64-bit)
- SQL Server 2008 R2 Enterprise (32-bit or 64-bit)

If none of the supported editions is already installed on your computer, the Setup wizard automatically installs SQL Server 2008 R2 Expression, creates the `FTVIEWx64TagDB` instance, and generate a random password for the System Administrator (SA) account.

- If for some reason, you need to recreate the `FTVIEWx64TagDB` instance, see Recreate SQL Server 2008 R2 Express instance on page 111 for instructions.
- To change the SA password, use the SQL Server Management Studio (SSMS). For more information about downloading or installing SSMS, see Microsoft Download Center.

The new password must be a strong password. For more information, see Strong password guidelines on page 116.

Note: The chosen password should be recorded and saved along with other administrator passwords for system maintenance personnel.

Install compatible SQL Server editions

FactoryTalk View SE provides a batch file that you can use to install the SQL Server edition with minimal user intervention. Follow the steps below:

1. Close all open Windows programs, including FactoryTalk View setup program.

2. Open the Command Prompt window.

3. In the Command Prompt window, navigate to the following directory where D:\ is the drive containing the installation DVD or installation package:

   D:\Redist\SQLServerEXPR_2008R2SP2VS2103
4. Type a command line with the following syntax:

"Install Compatible SQL.bat" [SQL setup.exe path] [Product key] [SA password]

where

- [SQL setup.exe path] Specifies the full path of SQL Server setup.exe, for example, D:\setup.exe.
- [Product key] Specifies the SQL Server product key.
- [SA password] Specifies the SQL Server System Administrator (SA) password.

All parameters are required.

**Example:** Assuming that SQL Server setup.exe is under the drive D:, the product key is 01234-56789-ABCDE-FGHIJ-KLMNO, and the SA password is mySaPwd@123, type the following command:

"Install Compatible SQL.bat" D:\setup.exe 01234-56789-ABCDE-FGHIJ-KLMNO mySaPwd@123

5. Press Enter. The installation starts.

6. Follow the on-screen instruction to complete the installation.

**Strong password guidelines**

Strong passwords are not readily guessed by a person, and are not easily hacked using a computer program. Strong passwords cannot use prohibited conditions or terms, including:

- A blank or NULL condition
- Password
- Admin
- Administrator
- sa
- sysadmin

A strong password cannot be the following terms associated with the installation computer:

- The name of the user currently logged onto the machine
- The computer name

A strong password must be more than 8 characters in length and satisfy at least three of the following four criteria:

- It must contain uppercase letters
- It must contain lowercase letters
- It must contain numbers
- It must contain non-alphanumeric characters; for example, #, %, or ^
Install Microsoft IIS

Microsoft Internet Information Services (IIS) is a critical service for a distributed FactoryTalk View SE System. The Setup wizard detects and installs IIS automatically if IIS is not available on the computer.

This appendix serves as a reference to help you troubleshoot issues and verify IIS settings.

The following table shows whether IIS is required on your computers:

<table>
<thead>
<tr>
<th>IIS required</th>
<th>IIS not needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>• FactoryTalk View SE Server</td>
<td>• FactoryTalk View SE Client</td>
</tr>
<tr>
<td>• FactoryTalk View Studio that needs to remotely connect to a Network FactoryTalk View SE system.</td>
<td>• FactoryTalk View Studio</td>
</tr>
<tr>
<td></td>
<td>• Stand Alone RSLinx Enterprise Server</td>
</tr>
<tr>
<td></td>
<td>• Stand Alone FactoryTalk Directory Server</td>
</tr>
</tbody>
</table>

Manually install IIS

The steps may vary because of different versions and configurations. Follow the on-screen instructions that apply to the operating systems you are using. If necessary, you can install IIS from your Microsoft Windows operating system DVD.

To install IIS on Windows 10, Windows 8.1, Windows 8, or Windows 7:

1. Open Windows Control Panel, and click Programs.
2. Under Programs and Features, click Turn Windows features on or off. The Windows Features dialog box will open.
3. Click the checkbox to the left of Internet Information Services to enable settings.
4. Expand the Web Management Tools folders, and then expand the IIS 6 Management Compatibility folder.
5. Select the IIS Metabase and IIS 6 configuration compatibility check box.
6. Expand the World Wide Web Services folder and then expand the Application Development Features folder.
7. Select the ASP check box. The ISAPI Extensions check box should then be selected automatically.

8. Under the World Wide Web Services folder, expand the Common HTTP Features folder.


10. Select the Windows Authentication and URL Authorization check boxes.

**Tip:** If IIS is installed correctly, you should be able to open the HMI server status page on localhost first, then from another computer. To test this, open Internet Explorer, in the address field, type `http://localhost/rsviewse`, or `http://computername/rsviewse` then press Enter.

**To install IIS on Windows Server 2008 R2 or Server 2012:**

1. Select Start > Administrative Tools > Server Manager.

2. (Windows Server 2008 R2) In the Server Manager window, under Roles Summary, click Add Roles.

   (Windows Server 2012) In the Server Manager Dashboard window, click Add roles and features.

3. Use the Add Roles Wizard (or Add Roles and Features Wizard) to add the Web Server (IIS) role.

4. To install the Web Server, some additional Windows features might need to be installed. In each case, click Add Required Features.

5. Click to expand Security, and then select the Windows Authentication and URL Authorization check boxes.

6. Click to expand Application Development, and then select ASP.

7. When prompted to install ISAPI Extensions, click Add Required Role Services.
The following example shows the installation for Windows Server 2008 R2.

8. Click to expand **Management Tools** and then expand **IIS 6 Management Compatibility**.

9. Under IIS 6 Management Compatibility, select **IIS 6 Metabase Compatibility**.

The following example shows the installation for Windows Server 2008 R2.
10. Click Next, and then accept the default selections at each remaining step of the wizard by clicking Next until all of the steps are complete.

11. At the end of the wizard, click Install to install the Web Server role.

About uninstalling IIS

If for some reasons, you need to uninstall and then reinstall IIS, after reinstalling, you need to recreate the virtual directories in IIS.

Use RSViewWebManager to recreate the virtual directories. The default location is:

- C:\Program Files (x86)\Rockwell Software\RSView Enterprise\RSViewWebManager.exe (64-bit operating systems)
- C:\Program Files\Rockwell Software\RSView Enterprise\RSViewWebManager.exe (32-bit operating systems)
Appendix E

Use unattended installation

The unattended installation is an automated installation method that you can use to install FactoryTalk View. You can typically use the unattended installation during large-scale rollouts when it might be too slow and costly to have administrators or technicians interactively install the FactoryTalk View software on individual computers.

In the unattended installation, you enter a specified command line with multiple parameters. During the installation process, instead of prompting you for installation and configuration information interactively, the process follows the parameters you specified in the command lines.

If you use RSNetWorx on your computer, RSNetWorx v10.00 or later is required. We recommend that you upgrade it to v21.00 or later before the installation.

For detailed description about each parameter, see Parameters on page 124. You can also type Setup /? in the Command Prompt window, and press Enter to view the help information of all parameters and examples.

To install FactoryTalk View in the unattended mode, follow the steps below. The steps may vary slightly. Follow the on-screen instructions that apply to your operating system.

1. Close all open Windows programs.

2. Open the Command Prompt window.

3. In the Command Prompt window, navigate to $D;$, where $D;$ is the drive containing the FTView installation DVD or installation package, and press Enter.

   Tip: The User Account Control dialog box may show after you press Enter, click Yes to continue. The unattended installation requires the administrator permission.

4. Type a command line with the following syntax:

   Setup {/Q | /QS} /IAcceptAllLicenseTerms [/AutoRestart] [/SetupLanguage=language]

Perform unattended installation
5. Press Enter. The installation process starts with the parameters you specified.

**Parameters**

The parameters and values are not case sensitive. If the value includes spaces, you need to enclose it in quotation marks (" ").

If your installation package is Personalized Edition, the following parameters will be ignored during installation:

- `/SerialNumber`
- `/ProductKey`

/Q

Required if /QS is not specified.

Installs the product in the silent mode without any user interface.

/QS

Required if /Q is not specified.

Installs the product in the unattended mode without user interaction during installation, and shows the progress, errors, or complete messages on the user interface.

/IAcceptAllLicenseTerms

Required. Specified that you read and acknowledge all license agreements, and agree to continue the installation.

/AutoRestart

Optional. If specified, the computer will be restarted automatically after the installation if a restart is required to complete the installation.

The parameter is ignored if a restart is not required.

/SetupLanguage=language
Optional. Specifies which language will be displayed during the installation process. The value must be the one of ENU, CHS, DEU, ESP, FRA, ITA, JPN, KOR, or PTB.

If it is omitted or if the specified language is not available, the default language is the user or system user interface language.

/Product=product_name

Required. Specifies which product will be installed. The value must be quoted by quotation marks (""), for example, /Product="Studio Enterprise".

The product name must be the one of following:

- Studio Enterprise
- Site Edition Server
- Site Edition Client
- Site Edition Station
- FactoryTalk ViewPoint SE
- Stand-alone RSLinx Enterprise Server
- Stand-alone FactoryTalk Directory Server

/InstallDrive=drive

Optional. Specifies the installation drive.

If omitted, the default drive is C:.

/SerialNumber=serial_number

Optional. Specifies the serial number that is required if you want to get activation keys during installation.

/ProductKey=product_key

Optional. Specifies the product key that is required if you want to get activation keys during installation.

/Version=product_version

Optional. Specifies the version corresponding to the product version that the SerialNumber and ProductKey are able to activate if you want to get activation keys during the installation.
Appendix E  Use unattended installation

If omitted, the Setup wizard uses a default version which is the most recent product version available when retrieving the activation.

Examples

The following examples show how to use the commands during the unattended installation.

Example 1

Setup.exe /Q /IAcceptAllLicenseTerms /Product="Studio Enterprise"

means:

- FactoryTalk View Studio Enterprise will be installed.
- The installation uses the default settings during the installation process.

Example 2

Setup.exe /QS /IAcceptAllLicenseTerms /AutoRestart /SetupLanguage=CHS /Product="Site Edition Client" /InstallDrive=D: /SerialNumber=0123456789 /ProductKey=ABCDE-FGHIJ /Version=9.00.00

means:

- During the installation, the displayed language is Chinese.
- FactoryTalk View Site Edition Client version 9.00.00 will be installed to D:\Program Files (x86)\Rockwell Software if you are using a 64-bit operating system.
- The setup will get activation keys during installation if the serial number 0123456789 and product key ABCDE-FGHIJ are valid.
- After the installation, if a restart is required, the computer will be restarted automatically.
Troubleshoot KEPServer Enterprise

If you are using KEPServer Enterprise as an OPC server with FactoryTalk View 9.00.00 and using an HMI tag to connect to a third-party device, you will not be able to access the tag value. The cause is that the security enhancements in FactoryTalk View 9.00.00 affect the communications with third-party devices. To access the tag value, set the Distributed Component Object Model (DCOM) configuration for KEPServer Enterprise on the computers.

If you are using a direct reference tag through the KEPServer Enterprise OPC server, you can access the tag value successfully.

In the following steps, KEPServer Enterprise 5.19 is used as an example. The steps also apply to earlier versions of KEPServer Enterprise.

To set DCOM configuration for KEPServer Enterprise

1. Open Component Services.

   **Tip:** You can open Component Services from Control Panel > Administrative Tools, or use the search box on the Windows Start menu or the taskbar. For more information about how to open Component Services, see Windows Help.

2. From the console tree, select Component Services > Computers > My Computer > DCOM Config.

3. Under the DCOM Config node, right-click KEPServiceEnterprise 5.19 and select Properties.
4. In the **KEPServerEnterprise 5.19 Properties** dialog box, click the **Security** tab.
5. In the **Launch and Activation Permissions** area, select **Customize** and click **Edit**. The **Launch and Activation Permission** dialog box opens.

![Launch and Activation Permission dialog box](image)

6. If **LOCAL SERVICE** is not in the **Group or user names** box, add **LOCAL SERVICE**.
   a. Click **Add**.
   b. In the **Select Users or Groups** dialog box, enter **LOCAL SERVICE**.
   c. Click **OK**.

   **LOCAL SERVICE** shows in the **Group or user names** list.

7. Allow Local Launch permission and Local Activation permission for **LOCAL SERVICE**.

9. If LOCAL SERVICE is not in the Group or user names box, add LOCAL SERVICE. For detailed instruction, see step 6.
10. Allow Local Access permission and Remote Access permission for LOCAL SERVICE. For detailed instruction, see step 7.

![Access Permission Dialog](image)

11. Click **OK** to close the **KEPServerEnterprise 5.19 Properties** dialog box.

12. Restart the computer to apply the changes.
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Rockwell Automation provides technical information on the web to assist you in using its products. At http://www.rockwellautomation.com/support you can find technical and application notes, sample code, and links to software service packs. You can also visit our Support Center at https://rockwellautomation.custhelp.com for software updates, support chats and forums, technical information, FAQs, and to sign up for product notification updates.

In addition, we offer multiple support programs for installation, configuration, and troubleshooting. For more information, contact your local distributor or Rockwell Automation representative, or visit http://www.rockwellautomation.com/services/online-phone.

Installation assistance

If you experience a problem within the first 24 hours of installation, review the information that is contained in this manual. You can contact Customer Support for initial help in getting your product up and running.

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Rockwell Automation tests all of its products to ensure that they are fully operational when shipped from the manufacturing facility. However, if your product is not functioning and needs to be returned, follow these procedures.

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