PlantPAx Virtual Image Templates
Simplify and Leverage Virtualization

Features and Benefits

• **Reduce engineering time and validation costs**
  Virtual image deployment of Distributed Control System appliances takes only hours and components can be duplicated in minutes, helping to reduce initial installation by several days.

• **Ease lifecycle management**
  A virtualized environment supports accelerated IT delivery of software upgrades. It simplifies patch management and helps reduce the possibility of errors during patching.

• **Enhance scalability**
  As new system components are needed, simply copy the template and order a new activation.

Reduce validation and engineering costs, and extend product life cycles with Virtual Image Templates

To meet the growing popularity of virtual environments within the process industry, Rockwell Automation offers a new option to deploy the PlantPAx® distributed control system (DCS). The PlantPAx Virtual Image Templates deliver the core system elements as pre-configured, drop-in templates on a USB hard drive. Delivered in an open, virtual-format file, and officially supported and tested for use with VMWare vSphere, the following templates are provided:

• **Process Automation System Server (PASS):** Provides central administration and central name resolution across multiple computers throughout the PlantPAx DCS. The PASS also provides data, HMI and alarm server capability.

• **Engineering Workstation (EWS):** Contains necessary software to fully configure the control and visualization components of the PlantPAx DCS.

• **Operator Workstation (OWS):** Contains required software for visualizing and controlling the process.

• **VantagePoint Server (ASIV):** Configured as a decision support tool by using FactoryTalk® VantagePoint® EMI software, a powerful web-based business intelligence solution designed specifically for industrial environments with premier Logix integration. With an AppServ-Info (VantagePoint) system element in your PlantPAx DCS you can access your production data from anywhere including your shop floor devices, PC, or your mobile phone or tablet.
• Process Automation Domain Controller (PADC): The PlantPAx system uses a domain controller to store user account information, authenticate users, enforce security policies and best networking practices such as automatic network address assignment. Domain authentication is recommended, whether it's an existing domain or a new one.

• Historian Server (ASIH): Provides a Historian server for your system leveraging FactoryTalk Historian Server SE. A Historian server allows you to collect, store, retrieve, report, and analyze data generated by your system. This template represents a base installation of a FactoryTalk Historian server.

• Batch Server (ASBM): Provides efficient, consistent predictable batch processing and supports the reuse of code, recipes, phases, and logic. FactoryTalk Batch combines the ISA S88 standard with proven flexible technology.

• Asset Management Server (ASAM): Provides controller data backup for disaster recovery, diagnostics, calibration, and real-time monitoring while auditing equipment and network health to improve overall resource availability.

• Application Server EWS (ASEWS): Contains required software to fully configure the control and visualization components of the PlantPAx DCS and is configured with the Remote Desktop Services role to allow for multiple instances of the EWS to be served up to thin clients for ease of management.

• Application Server OWS (ASOWS): Contains required software needed for visualizing and controlling the process plus it is configured with the Remote Desktop Services role to allow for multiple instances of the OWS to be served up to thin clients for ease of management.

The Value of Virtualization

In general, a virtual environment, which the PlantPAx Virtual Image Templates help create, offers the following advantages to end users.

- Extends the hardware lifecycle resulting in reduced IT administration and support. The virtual environment allows multiple applications and operating systems to run on one hardware platform. Legacy software can run on newer hardware, and/or older hardware can run newer software.

- Control system independence from hardware improves total cost of ownership and enhances high availability. Separating software from hardware extends the lifecycle of the control system and reduces risk associated with hardware, operating systems and applications.

- Standardization of customized process control strategies results in easy distribution of best practices. Once a process control strategy is designed it is easily reproducible throughout the plant or in multiple plants around the world.

- Virtual machines structured on end-user roles enhance security and increases flexibility. Operators and engineers are able to access their workstations through any number of thin clients, traditional desktops or tablets transparently and seamlessly. This feature allows an EWS to be converted to an OWS based on the login.

- Dynamic movement of virtual machines minimizes lost revenue from planned or unplanned downtime. Virtual machines can be migrated between servers while the system is still running. Administrators can shift workloads with no impact to the system during scheduled outages and machines can automatically recover if a server fails.

- Eliminating under-utilized servers improves operational efficiency. Traditionally, IT isolates servers based on task, which means many servers aren't used to capacity. Independence from hardware prevents under-utilization in a virtual environment.
**Process Automation System Server**

USB Drive containing virtual image template for the Process Automation System Server (PASS). Activations are purchased separately (see below).

<table>
<thead>
<tr>
<th>Description</th>
<th>ESD Cat. Number</th>
<th>Media Cat. Number</th>
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<tr>
<td>Physical Media Kit, Software, Virtual Image Template, PlantPAx, Unlicensed</td>
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<td>9528-PASSVTENM</td>
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<td>Rockwell Automation product activations to be used in conjunction with 9528-PASSVTENM (Microsoft OS licensing not included).</td>
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**Process System Domain Server**

USB Drive containing the virtual image template for the Process System Domain Controller (Microsoft OS licensing not included).

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<td>EWS Virtual Image Template Activation</td>
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**Engineering Work Station**

USB Drive containing the virtual image template for the Engineering Work Station (EWS). Activations are purchased separately (see below).

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**Operator Work Station**

USB Drive containing the virtual image template for the Operator Work Station (OWS). Activations are purchased separately (see below).

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<td>OWS Virtual Image Template Activation</td>
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**Application Servers for Engineering and Operator Work Stations**

USB Drive containing the virtual image templates for Application Servers for EWS and OWS. These Servers allow users to serve up applications to thin clients. These servers include FactoryTalk View SE v10.0, Studio5000 Logix Designer v24.02 and 31.00, RSLogix 5000 v24-04.01 and more. Activations are purchased separately (see below).

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Asset Management Server
USB Drive containing the virtual image template for the Asset Management Server. This server leverages FactoryTalk AssetCentre v8.00. Activations are purchased separately (see below).

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Rockwell Automation product activations to be used in conjunction with 9528-APPASMEMN (Microsoft OS licensing not included).

- FactoryTalk AssetCentre Server Activation: 9528-ASTSRVRENE, 9528-ASTSRVRENM
- FactoryTalk AssetCentre Disaster Recovery for Remote Computers Activation: 9528-ASTDRRCENE, 9528-ASTDRRCENM
- FactoryTalk AssetCentre 5 Additional Assets Activation: 9528-ASTCAP0005E, 9528-ASTCAP0005M
- FactoryTalk AssetCentre 100 Additional Assets Activation: 9528-ASTCAP0100E, 9528-ASTCAP0100M
- FactoryTalk AssetCentre 500 Additional Assets Activation: 9528-ASTCAP0500E, 9528-ASTCAP0500M
- FactoryTalk AssetCentre Disaster Recovery Activation: 9528-ASTDRROKENENE, 9528-ASTDRROKENEM
- FactoryTalk AssetCentre Process Device Configuration Activation: 9528-ASTPRDCFENE, 9528-ASTPRDCFENM

Batch Server
USB Drive containing the virtual image template for the Batch Server. This server leverages FactoryTalk Batch v13.00. Activations are purchased separately (see below).

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Rockwell Automation product activations to be used in conjunction with 9528-APPBATENM (Microsoft OS licensing not included).

- FactoryTalk Batch - 1 Unit: 9358-FTB01ENE, 9358-FTB01ENM
- FactoryTalk Batch - 3 Units: 9358-FTB03ENE, 9358-FTB03ENM
- FactoryTalk Batch - 10 Units: 9358-FTB10ENE, 9358-FTB10ENM
- FactoryTalk Batch - 30 Units: 9358-FTB30ENE, 9358-FTB30ENM
- FactoryTalk Batch - 60 Units: 9358-FTB60ENE, 9358-FTB60ENM
- FactoryTalk Batch Back-up Key - 1 Unit: 9358-FTBKYO1ENE, 9358-FTBKYO1ENM
- FactoryTalk Batch Back-up Key - 3 Units: 9358-FTBKYO3ENE, 9358-FTBKYO3ENM
- FactoryTalk Batch Back-up Key - 10 Units: 9358-FTBKYO10ENE, 9358-FTBKYO10ENM
- FactoryTalk Batch Back-up Key - 30 Units: 9358-FTBKYO30ENE, 9358-FTBKYO30ENM
- FactoryTalk Batch Back-up Key - 60 Units: 9358-FTBKYO60ENE, 9358-FTBKYO60ENM

Historian Server
USB Drive containing the virtual image template for the Historian Server. This server leverages FactoryTalk Historian v5.01. Activations are purchased separately (see below).

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Rockwell Automation product activations to be used in conjunction with 9528-APPHISENEM (Microsoft OS licensing not included).

- FactoryTalk Historian SE, 250 Tags Activation: 9528-HSE250, 9528-HSE250M
- FactoryTalk Historian SE, 500 Tags Activation: 9528-HSE500, 9528-HSE500M
- FactoryTalk Historian SE, 1K Tags Activation: 9528-HSE1K, 9528-HSE1KM
- FactoryTalk Historian SE, 2500 Tags Activation: 9528-HSE2K5, 9528-HSE2K5M
- FactoryTalk Historian SE, 5K Tags Activation: 9528-HSE5K, 9528-HSE5KM
- FactoryTalk Historian SE, 10K Tags Activation: 9528-HSE10K, 9528-HSE10KM
**SQL Server**

USB Drive containing the virtual image template for the SQL Server. This server leverages Microsoft SQL Server 2012. Please note you will also need Microsoft SQL Server licenses to activate according to your needs (Microsoft OS licensing not included).

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**VantagePoint Server**

USB Drive containing the virtual image template for the VantagePoint Server. This server leverages FactoryTalk VantagePoint v8.00. Activations are purchased separately (see below).

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<td>9528-APPVTPENM</td>
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*Rockwell Automation product activations to be used in conjunction with 9528-APPVTPENM (Microsoft OS licensing not included).*

- FactoryTalk VantagePoint EMI Server Activation
  - 9528-VPSERVERENE
  - 9528-VPSERVERENM
- FactoryTalk VantagePoint 1 Concurrent User Activation
  - 9528-VPCL01ENE
  - 9528-VPCL01ENM
- FactoryTalk VantagePoint 3 Concurrent Users Activation
  - 9528-VPCL03ENE
  - 9528-VPCL03ENM
- FactoryTalk VantagePoint 5 Concurrent Users Activation
  - 9528-VPCL05ENE
  - 9528-VPCL05ENM
- FactoryTalk VantagePoint 10 Concurrent Users Activation
  - 9528-VPCL010ENE
  - 9528-VPCL010ENM
- FactoryTalk VantagePoint Concurrent User CPU License (Per CPU) Activation
  - 9528-VPCPPPENE
  - 9528-VPCPPPENM
- FactoryTalk VantagePoint 3rd-Party Historian Connector (Licensed per connector instance) Activation
  - 9528-VPHSCENE
  - 9528-VPHSCENM
- FactoryTalk VantagePoint 1 Named User Activation
  - 9528-VPNL01ENE
  - 9528-VPNL01ENM
- FactoryTalk VantagePoint 3 Named Users Activation
  - 9528-VPNL03ENE
  - 9528-VPNL03ENM
- FactoryTalk VantagePoint 5 Named Users Activation
  - 9528-VPNL05ENE
  - 9528-VPNL05ENM
- FactoryTalk VantagePoint 10 Named Users Activation
  - 9528-VPNL010ENE
  - 9528-VPNL010ENM