# **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).

Description	ESD Cat. Number	Media Cat. Number
Physical Media Kit, Software, Virtual Image Template, PlantPAx, Unlicensed	-	9528-PASSVTENM
Rockwell Automation product activations to be used in conjunction with 9528-PASSVTENM (Microsoft OS licensing not included).		
PASS Virtual Image Template Activation, View SE Server - 100 Display	9528-PASS100ENE	9528-PASS100ENM
PASS Virtual Image Template Activation, View SE Server - 250 Display	9528-PASS250ENE	9528-PASS250ENM
PASS Virtual Image Template Activation, View SE Server - Unlimited Display	9528-PASSUNLENE	9528-PASSUNLENM
PASS Virtual Image Template Activation, View SE Server + 10 OWS Licenses	9528-PASSLICENE	9528-PASSLICENM
PASS Virtual Image Template Activation, View SE Server + 25 OWS Licenses	9528-PASS25LICENE	9528-PASS25LICENM

## **Process System Domain Server**

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

Description	ESD Cat. Number	Media Cat. Number
Physical Media Kit, Software, Virtual Image Template, PlantPAx, Unlicensed	-	9528-PADCVTENM

# **Engineering Work Station**

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

Description	ESD Cat. Number	Media Cat. Number
Physical Media Kit, Software, Virtual Image Template, PlantPAx, Unlicensed	-	9528-EWSVTENM
Rockwell Automation product activations to be used in conjunction with 9528-EWSVTENM (Microsoft OS licensing not included).		
EWS Virtual Image Template Activation	9528-EWSLICENE	9528-EWSLICENM

# **Operator Work Station**

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

Description	ESD Cat. Number	Media Cat. Number
Physical Media Kit, Software, Virtual Image Template, PlantPAx, Unlicensed	-	9528-OWSVTENM
Rockwell Automation product activations to be used in conjunction with 9528-OWSVTENM (Microsoft OS licensing not included).		
OWS Virtual Image Template Activation	9528-OWSLICENE	9528-OWSLICENM

## 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).

Description	ESD Cat. Number	Media Cat. Number	
Physical Media Kit, Software, Virtual Image Templates, PlantPAx, Engineering Workstation Application Server, Operator Workstation Application Server, Unlicensed	-	9528-APPXWSENM	
Rockwell Automation product activations to be used in conjunction with 9528-APPXWSENM (Microsoft OS licensing not included).			
EWS Virtual Image Template Activation	9528-EWSLICENE	9528-EWSLICENM	
OWS Virtual Image Template Activation	9528-OWSLICENE	9528-OWSLICENM	

# **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).

Description	ESD Cat. Number	Media Cat. Number
Physical Media Kit, Software, Virtual Image Template, PlantPAx, Application Server with AssetCentre, Unlicensed, Microsoft Volume License	-	9528-APPASMENM
Rockwell Automation product activations to be used in conjunction with 9528-APPASMENM (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 25 Additional Assets Activation	9528-ASTCAP0025E	9528-ASTCAP0025M
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-ASTDRROKENE	9528-ASTDRROKENM
FactoryTalk AssetCentre Process Device Configuration Activation	9528-ASTPRDCFENE	9528-ASTPRDCFENM

#### **Batch Server**

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

Description	ESD Cat. Number	Media Cat. Number
Physical Media Kit, Software, Virtual Image Template, PlantPAx, Batch Management Server, Unlicensed, Microsoft Volume License	-	9528-APPBATENM
Rockwell Automation product activations to be used in conjunction with 9528-	APPBATENM (Microsoft OS lic	ensing 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-FTBKY01ENE	9358-FTBKY01ENM
FactoryTalk Batch Back-up Key - 3 Units	9358-FTBKY03ENE	9358-FTBKY03ENM
FactoryTalk Batch Back-up Key - 10 Units	9358-FTBKY10ENE	9358-FTBKY10ENM
FactoryTalk Batch Back-up Key - 30 Units	9358-FTBKY30ENE	9358-FTBKY30ENM
FactoryTalk Batch Back-up Key - 60 Units	9358-FTBKY60ENE	9358-FTBKY60ENM

## **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).

Description	ESD Cat. Number	Media Cat. Number	
Physical Media Kit, Software, Virtual Image Template, PlantPAx, Application Server for Historian, Unlicensed, Microsoft Volume License	-	9528-APPHISENM	
Rockwell Automation product activations to be used in conjunction with 9528-APPHISENM (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).

Description	ESD Cat. Number	Media Cat. Number
Physical Media Kit, Software, Virtual Image Template, PlantPAx, Application Server with SQL, Unlicensed	-	9528-APPSQLENM

# 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).

Description	ESD Cat. Number	Media Cat. Number
Physical Media Kit, Software, Virtual Image Template, PlantPAx, Application Server with VantagePoint, Unlicensed	-	9528-APPVTPENM
Rockwell Automation product activations to be used in conjunction with 9528-A	PPVTPENM(Microsoft OS lice	nsing 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-VPCPPENE	9528-VPCPPENM
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

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## www.rockwellautomation.com

## Power, Control and Information Solutions Headquarters

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444
Europe/Middle East/Africa: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640
Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846