

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.

LISTEN.
THINK.
SOLVE.

- **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.

Rockwell Software Licenses

Virtual Template	Cat. No.	License Type	Description
PASS, EWS, OWS, PADC	9528-PAXVTOENM	OEM	USB device that contains four virtual image templates (PASS, EWS, OWS, and PADC). Each template contains an OEM or Volume License (VL) version of Microsoft® Windows® Server 2012 R2 Standard or Windows 8.1 Pro operating system. All required Rockwell Automation software is pre-installed but not activated.
	9528-PAXVTENM	VL	
AppServ-OWS, AppServ-EWS	9528-APPXWSEOENM	OEM	USB device that contains the virtual image template for AppServ-OWS and AppServ-EWS. Each template contains an OEM or Volume License (VL) version of Microsoft Windows 2012 R2 Standard operating systems. All required Rockwell Automation software is pre-installed but not activated. IMPORTANT: Microsoft and Rockwell Automation Licensing has to be per EWS and OWS client, not per AppServ-EWS or AppServ-OWS. Each client needs its own licenses.
	9528-APPXWSENEM	VL	
AppServ-Info (Historian)	9528-APPHISOENM	OEM	USB device that contains the virtual image template for AppServ-Info (Historian). The template contains an OEM or Volume License (VL) version of Microsoft Windows Server 2012 R2 Standard operating system. All required Rockwell Automation software is pre-installed but not activated.
	9528-APPHISENM	VL	
AppServ-Asset	9528-APPASMOENM	OEM	USB device that contains the virtual image template for AppServ-Asset. The template contains an OEM or Volume License (VL) version of Microsoft Windows Server 2012 R2 Standard operating system. All required Rockwell Automation software is pre-installed but not activated.
	9528-APPASMENM	VL	
AppServ-Info (SQL)	9528-APPSQLOENM	OEM	USB device that contains the virtual image template for AppServ-Info (SQL). The template contains an OEM or Volume License (VL) version of Microsoft Windows Server 2012 R2 Standard operating system. All required Microsoft software is pre-installed and activated.
	9528-APPSQLENM	VL	
AppServ-Info (VantagePoint)	9528-APPVPTOENM	OEM	USB device that contains the virtual image template for AppServ-Info (VantagePoint). The template contains an OEM or Volume License (VL) version of Microsoft Windows Server 2012 R2 Standard operating system. Most required Rockwell Automation software is pre-installed but not activated. The FactoryTalk VantagePoint software is not pre-installed for your convenience. For details, see the PlantPAx Virtualization User Manual, publication 9528-UM001.
	9528-APPVTPENM	VL	
AppServ-Batch	9528-APPBATOENM	OEM	USB device that contains the virtual image template for AppServ-Batch. The template contains an OEM or Volume License (VL) version of Microsoft Windows Server 2012 R2 Standard operating system. Most required Rockwell Automation software is pre-installed but not activated. The FactoryTalk Batch software is not pre-installed for your convenience. For details, see the PlantPAx Virtualization User Manual, publication 9528-UM001.
	9528-APPBATENM	VL	

System Element Licenses

System Element	Cat. No.	License Type	Description
EWS	9528-EWSLICENM	Rockwell Automation Software	Activation for the EWS
OWS	9528-OWSLICENM		Activation for the OWS
PASS	9528-PASS100ENM		Activation for PASS with 100 Displays
PASS	9528-PASS250ENM		Activation for PASS with 250 Displays
PASS	9528-PASSUNLENM		Activation for PASS with Unlimited Displays

Microsoft Software Licenses

Software License	Cat. No.	License Type	Description
Microsoft Software License Catalog Numbers	9528-WINSRVOEMENM	OEM	Microsoft OEM License for activating the operating systems of virtual servers leveraging Windows Server 2012 R2 Standard operating system. Includes Windows Server 2012 R2 Standard DVD, Windows Server 2012 R2 Standard Certificate Of Authenticity, one Client Access License, and one Remote Desktop Services Client Access License.
	9528-WINPROOEMENM		Microsoft OEM License for activating the operating systems of virtual workstations leveraging Windows 8.1 Pro. Includes Windows 10 Pro DVD + Certificate Of Authenticity. IMPORTANT: This is a Windows 10 Pro License that can be downgraded and used to activate Windows 8.1 Pro.

PlantPAx and Rockwell Automation are registered trademarks of Rockwell Automation, Inc.
Trademarks not belonging to Rockwell Automation are the property of their respective companies.

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