

Introduction

The DeltaV™ automation system is supplied as a system with published performance specifications and customer expectations for robustness, integrity, and system responsiveness in line with the critical nature of automation systems. Emerson Process Management is able to meet these automation system performance expectations by designing and rigorously testing the DeltaV software with a specific, known set of Windows® operating system versions and configurations.

Specific Concern of this Guideline¹

Emerson Process Management recognizes that our customers are concerned with staying current with Microsoft security updates, critical updates and service packs while still maintaining a supported DeltaV digital automation system configuration.

This document defines Emerson Process Management's guidelines around the testing and deployment of security updates, operating system updates, and new operating system service packs.

Guideline

Emerson Process Management is concerned with maintaining the ongoing security and integrity of the operating system used on the DeltaV system. Therefore, all published Microsoft security updates and critical operating system updates are reviewed to determine whether deployment is permitted on the DeltaV automation system.

Emerson only supports updates that have been certified by Emerson for use with the particular version of DeltaV system.

Microsoft Security Updates—Microsoft issues new security updates each month.

- Each update is reviewed for applicability to the DeltaV workstations the day Microsoft publishes the associated Security Bulletin.
- The results of the review are published in a Knowledge-Based Article² (KBA).

- This KBA indicates whether or not the security update or other directions contained in the security bulletin will be supported on the DeltaV system, and the estimated time until compatibility certification testing will be completed.
- Security updates are tested on the DeltaV system per an update-specific test plan.
- Implementation instructions for the security update on the DeltaV system are documented in the KBA.
- Security updates will be implemented only in situations where they apply to an operating system feature/capability that is supported on the DeltaV system.
- As Emerson must typically test a security update across multiple revisions of DeltaV software, the testing priority will be to first test with the current general release of DeltaV software and then with other versions. Emerson will test the:
 - currently shipping version
 - current general release
 - last past general release
 - major releases between general releases

General release is the release distributed to support agreement subscribers.
- Our goal is to complete the security update certification testing for the currently shipping version and the current general release within three days of notification from Microsoft. The goal for testing all DeltaV versions to be supported is seven days
- In some cases, a security update will be of sufficient complexity that evaluation and testing will require more effort and investigation than normal. In these relatively infrequent cases, certification and testing may fall outside the three-to-seven day goals published above. In any case we will work to get security updates tested and certified as quickly as possible.

- If testing reveals problems that require changes to DeltaV software for the security update to be installed, this information will be published with an explanation of how and when the issue will be resolved.
- Should Microsoft cease supplying security updates on any operating system version used for running DeltaV software, we will stop supporting security bulletins on the DeltaV systems using this operating system.
- For systems that require security update testing on DeltaV previous versions not covered by the tests above, Emerson's Lifecycle Services personnel can be contracted to perform these tests.

Microsoft Critical Updates—Microsoft publishes critical updates (i.e. operating system defect repairs that do not pertain to security) whenever such a need arises.

- All Microsoft published critical updates are reviewed.
- Unless the update is to be deployed on the DeltaV system, the results of this review are not published.
- Generally these updates do not affect the proper operation of the DeltaV system, and they are not supported for deployment on the system.
- In the event that a critical update should be deployed on the DeltaV system, it will be documented in a knowledge-based article and follow the same procedure as defined for security updates.

Microsoft Operating System Service Packs—Service packs are major enhancements/updates to an operating system. Emerson Process Management will review and incorporate operating system service packs only as part of a major DeltaV system release.

Deployment of Security Updates onto DeltaV Workstations

The nature of a control system, where operators are engaged in critical operations, requires that maintenance of the system be done with the knowledge and permission of the operators and operations personnel.

Many security updates require a computer reboot to complete and should be done only with operator knowledge and agreement. In the event a DeltaV workstation must be rebooted, the computer must come back online quickly. The deployment of security updates (or anti-virus updates) should not be set up to "install on next reboot," as this would delay the reboot.

The possibility of having administrative software or a remote administrator take control of a workstation (except on request and permission of operations) must be avoided.

Acquisition and Deployment Methods

Subscribers to support services can acquire certified update files and associated KBAs by download directly from the Emerson support website. Non-service subscribers should contact their local Emerson service office or business partner to request KBAs and update files. Depending on service agreement level and system version, a service can be set up to automatically deliver system-specific updates to an internet-facing non-DeltaV computer (typical the system control engineer's office PC) via the internet.

Distribution of update files to each DeltaV system workstation and server is accomplished manually. Care must be taken to ensure the distribution media (USB flash drive for example) is free from viruses or other malware.

Optionally, distribution and installation of updates may be automated utilizing Microsoft Windows Server Update Service (WSUS) subject to guidelines set out in knowledge-base article¹ [Need new KBA or Guideline Paper.].

Summary

The DeltaV operating system management guidelines simplify the administration of your system. By reviewing and testing only those system updates that actually impact the DeltaV applications, you will ensure that there is a very limited number of updates to install. We eliminate the guesswork of figuring out which patches to deploy. By limiting the number of required updates, you are not constantly updating your workstations and running the risk of disrupting the operation of the automation system.

1. Guideline papers are issued to provide information concerning the practices that should be used for installation and deployment of a DeltaV system that is to be supported by Emerson Process Management. It is important that these guidelines be followed in order for Emerson Process Management to provide technical support for your DeltaV system. Failure to follow these guidelines may compromise our ability to provide timely and complete technical support for your DeltaV digital automation system.

2 Knowledge-based articles are available on-line to support agreement subscribers or may be obtained by request from the local Emerson Process Management sales office or business partner. Knowledge-based articles are subject to frequent change

To locate a sales office near you, visit our website at:

www.EmersonProcess.com/DeltaV

Or call us at:

Asia Pacific: 65.777.8211

Europe, Middle East: 41.41.768.6111

North America, Latin America: +1 800.833.8314 or
+1 512.832.3774

For large power, water, and wastewater applications contact Power and Water Solutions at:

www.EmersonProcess-powerwater.com

Or call us at:

Asia Pacific: 65.777.8211

Europe, Middle East, Africa: 48.22.630.2443

North America, Latin America: +1 412.963.4000

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