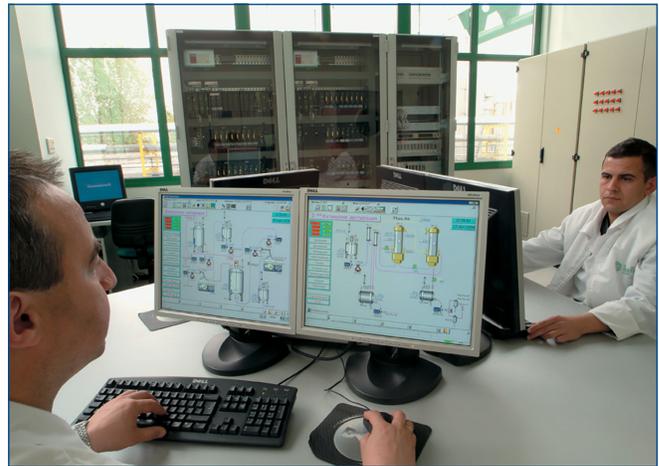# DeltaV™ Upgrade Service

- Secure upgrade approval

- Minimize risk and achieve predictable system upgrades

- Reduce engineering effort and software cut-over time

- Quickly implement new system features

- Protect your system investment

Emerson's DeltaV™ Upgrade Service reduces the risk of system software upgrades.

Introduction

Upgrading a suite of complex online process control software must be executed with great care. Emerson has made every effort to make upgrading the DeltaV™ distributed control system (DCS) a simple and fast process; the software upgrade process was not an afterthought with the DeltaV DCS. However, any software update on an automation system must get proper authorization, takes time to plan, and has some risk.

Beginning with the upgrade approval process, Emerson is able to reinforce upgrade requirements and benefits. Trained professionals provide expert planning, custom testing and risk assessment on a system simulated to match your site specifics to ensure a smooth transition of the DeltaV software versions. This service is designed to efficiently minimize the risk of implementing upgrades, allowing you to leverage the latest advances in software technology with confidence.

Benefits

Secure upgrade approval: From site evaluation to ensuring your return on investment (ROI) — Emerson offers services and tools to assist you with the upgrade project justification. Site evaluation identifies areas of risk, while monetary benefits can be calculated with Emerson's ROI calculator.

Minimize risk and achieve predictable system upgrades: A carefully developed, tested, and executed plan is the key to confidently and successfully performing important system changes without unwanted surprises. The DeltaV Upgrade Service simplifies the task of accomplishing system upgrades by handling the associated risk assessment, specialized testing and implementation details.

Reduce engineering and cut-over time: The DeltaV Upgrade Service provides a project-based approach to performing system upgrades safely and in the shortest amount of time, without tying up valuable engineering resources. Emerson's approach minimizes interruptions to daily plant activities.

Quickly implement new system features: System upgrade experts will introduce and brief you on new system features so you can quickly turn them into tangible benefits.

Protect your system investment: Your investment in existing software, configuration data, custom applications and historical information must be protected. Trained experts have the knowledge and experience to protect your existing data functionality and system integrity when installing new software.

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Service Description

The DeltaV Upgrade Service is provided in three distinct phases:

Evaluation Phase

The Evaluation Phase captures the system topography and general customer requirements. The evaluation that is delivered includes high-level technical considerations, as well as areas to test and validate the changes made as a result of the upgrade. The evaluation process includes:

- An assessment of the hardware and software upgrade requirements to go from the release currently installed on the system to the new release that will be implemented.

- A review of applicable, technical Knowledge Base Articles and Release Notes for known issues, resolved issues, and new functionality for all releases between the customer's current release and the target upgrade release.

- An evaluation of potential impact on graphics, database, and any third party devices.

To begin the Evaluation Phase, the customer must provide Emerson with complete system architecture information, including any third party or customized applications running in the system, as well as any other key site installation considerations.

Preparation Phase

During the Preparation Phase, a system will be staged to mimic your system's database and topology to determine the best approach for the specific upgrade to be performed. Deliverables can include:

- An assigned Emerson system upgrade engineer experienced in performing software upgrades. Engineers have extensive control applications expertise and experience, and they can provide expert software upgrade guidance and direction.
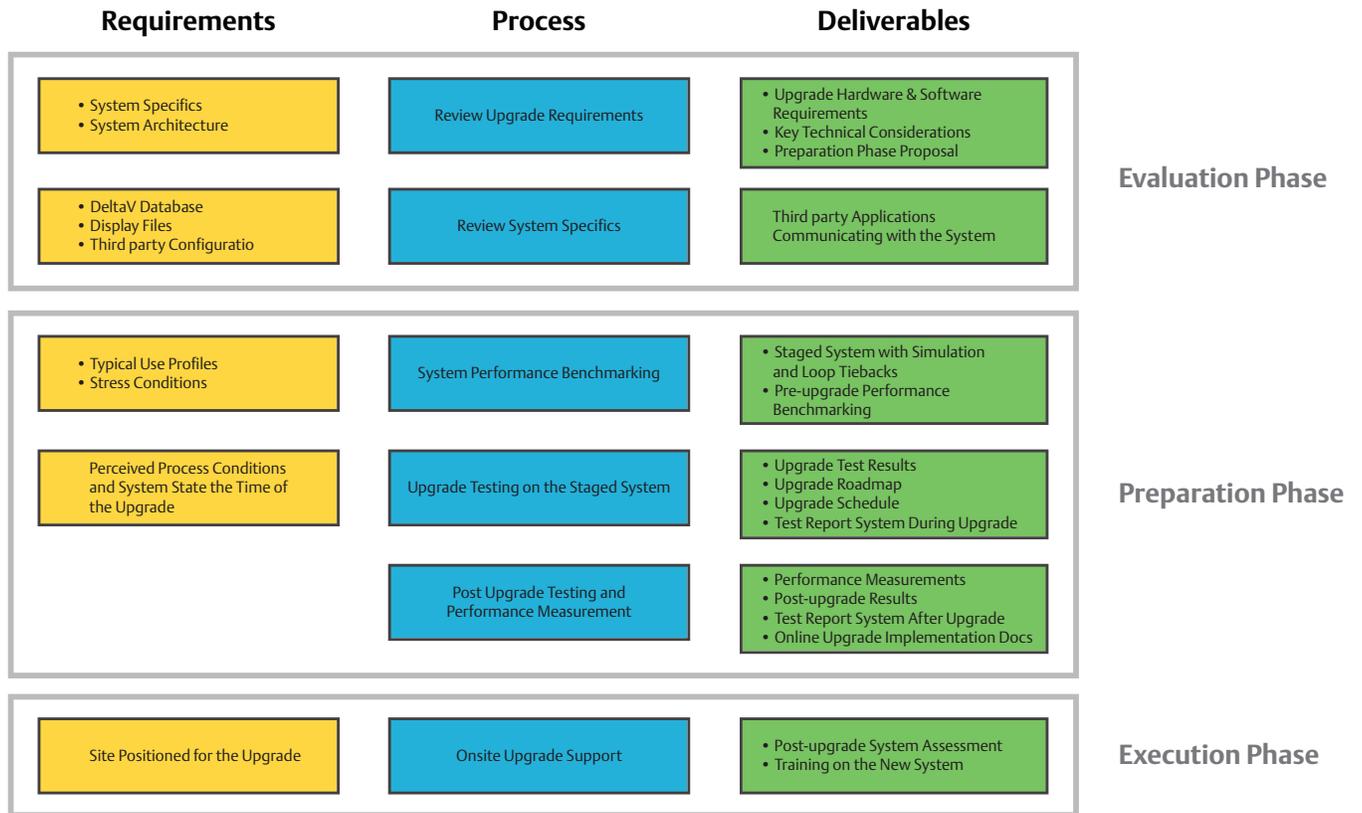
- Pre-installation customer consultation to review the current state of your system, in order to ensure the test setup accurately mimics your system.

- Detailed consultation regarding the newest features and enhancements contained in the new version of software.

- An outline of the testing procedure to be performed in a system that mimics your process system.

- A complete test report that outlines what system behavior can be expected during and after the upgrade.

- A System Performance Report that provides before-and-after comparisons including: display call-up performance, engineering performance, controller loading, segment loading, network loading, database import/export performance, drive space and system memory usage.

- A detailed roadmap indicating the upgrade prerequisites. These include any system hardware components to be upgraded, recommended back-up procedures, required complimentary product updates, system requirements, display migration, third party application compatibility, virus protection requirements, operating system revisions, third party device/software considerations and other issues specific to the system to be upgraded.

- Testing of any desired system modifications.

To start the Preparation Phase, the Evaluation Phase must be completed. Customer will provide Emerson with the applicable system database and any custom hardware and/or software required to set up a test system to duplicate the site system.

Execution Phase

The Execution Phase can include upgrade implementation planning, as well as onsite support. Once the upgrade is complete, deliverables can include a post-upgrade system assessment and additional training on new system features. The system upgrade Preparation Phase must be completed for the upgrade Execution support.

DeltaV™ Upgrade Service Process Map

Requirements	Process	Deliverables	
• System Specifics • System Architecture	Review Upgrade Requirements	• Upgrade Hardware & Software Requirements • Key Technical Considerations • Preparation Phase Proposal	**Evaluation Phase**
• DeltaV Database • Display Files • Third party Configuratio	Review System Specifics	Third party Applications Communicating with the System	
• Typical Use Profiles • Stress Conditions	System Performance Benchmarking	• Staged System with Simulation and Loop Tiebacks • Pre-upgrade Performance Benchmarking	**Preparation Phase**
Perceived Process Conditions and System State the Time of the Upgrade	Upgrade Testing on the Staged System	• Upgrade Test Results • Upgrade Roadmap • Upgrade Schedule • Test Report System During Upgrade	
	Post Upgrade Testing and Performance Measurement	• Performance Measurements • Post-upgrade Results • Test Report System After Upgrade • Online Upgrade Implementation Docs	
Site Positioned for the Upgrade	Onsite Upgrade Support	• Post-upgrade System Assessment • Training on the New System	**Execution Phase**

Ordering Information

Description	Model Number
DeltaV Upgrade Service - Evaluation	Contact Your Local Emerson Service Representative for a Quote

PRE-SALE QUALIFICATION: In situations where a particular task or "micro-project" is under consideration utilizing this service, a written summary of the project objectives and expected timing must be received and reviewed by Emerson Process Management prior to order acceptance. This is a safeguard for the customer to ensure the necessary Emerson Process Management resources are available within the expected timing and to define the scope of service along with a budgetary estimate for the work required. Emerson Process Management reserves the right not to quote a particular project at any time.

To learn how comprehensive Lifecycle Services solutions address your process management needs, contact your local Emerson sales office or representative, or visit **www.emersonprocess.com/deltavupgrade**.

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