# **DeltaV**<sup>™</sup> **Upgrades**

"In some plants, control systems obsolescence is responsible for up to 5% loss in total production." An efficient automation system should enable maximum production and quality output, while minimizing costs. Emerson understands that a system upgrade can seem like a big endeavor that may be difficult to get approval, or is viewed as risky, and it competes for priority with your other responsibilities.

Despite these obstacles, the cost of maintenance, the cybersecurity risks and the opportunity costs must be considered as the system ages. Maintaining status quo has higher cost and risk than performing an upgrade.

# What if...

- You had assistance with getting your upgrade project approved using proven tools?
- You could pre-test upgrades – taking out the unknown factors – to ensure minimal process disruption?
- You had personnel dedicated to implementing an upgrade before you experience process disruption or replacement cost liabilities?
- You could have a process system upgrade blueprint designed to give your plant the most secure system, with the biggest productivity bang for your buck, at the lowest disruption?

# **INCREASED MAINTENANCE COSTS**

Without regular updates, a control system's maintenance costs will increase over time. Aging hardware and software require more support, and attempting to source replacement parts for older workstations consumes valuable personnel time. Similarly, outdated system hardware often costs more and can have longer lead times.

As hardware ages, the risk of failure increases, which escalates the risk of a negative impact to production. It is very expensive to operate from one emergency to another. Staff is not available to focus solely on crisis situations — personnel must be pulled away from their core responsibilities.

#### **WEAKER CYBERSECURITY**

Systems become more vulnerable to cybersecurity threats when virus protection, security patches and updated virus definitions are not kept up to date. Manually maintaining the security of a system is also labor-intensive.

A system with an unsupported operating system and/or system software is more at risk for a cybersecurity breach. New cybersecurity threats are constantly appearing, and without any updates to protect against these, the system is vulnerable.

### **LOST OPPORTUNITY**

Continuous improvements in control system technology enable enhancements to productivity with resources and the process. Meeting production and business demands become increasingly

challenging with an aging automation system. The lack of modern technologies, agile service strategies and smart applications create inefficiencies in equipment usage, production and workforce utilization.



THE STATUS QUO IS NOT FREE





#### **REDUCE MAINTENANCE COSTS**

By keeping your system up to date, newer technologies — which cost less to maintain — can be deployed. Using virtualization reduces the amount of hardware, has higher availability, utilizes less energy and has extended life. Most of the time, new hardware is not required as part of a DeltaV distributed control system (DCS) upgrade. However, newer hardware, which is less expensive and easier to source, can be installed as needed or desired once the system is updated.

# STRENGTHEN CYBERSECURITY

Each new DeltaV DCS release is the most secure release ever as advancements in hardware, partnerships and security features embedded in the system become available. Information Technology (IT) hardware and partnerships with cybersecurity experts deliver increased security options, customized for the DeltaV DCS.

# **TECHNOLOGY DESIGNED FOR RESULTS**

Emerson continually invests in technology and solutions designed to improve operator efficiency and plant performance. Improvements in alarm management, electronic log books and advanced control are examples of enhancements that increase plant efficiency and performance.

# **REDUCE TOTAL COST OF OWNERSHIP**

New technology drives down total cost of ownership (TCO). Bringing systems up to date reduces exposure to increased maintenance, weaker cybersecurity and lost opportunities for improvement. Modern systems leverage the latest technology, engineered solutions and services to maximize throughput and availability while minimizing TCO.

#### LOWER RISK. EXPERT IMPLEMENTATION

The upgrade process was not an after-thought with the DeltaV DCS. There are upgrade solutions designed to meet your plant production needs using methodical, project-oriented, risk-averse approach to upgrading your DeltaV DCS.

Upgrade experts leverage years of experience to plan and test the upgrade to ensure a smooth transition to the new revision. The approach starts by defining your system upgrade objectives, which may include a site evaluation, lifecycle planning, new system technology, hardware and software updates, and availability of your production at the time of the upgrade.

Don't wait for an emergency before taking action to increase system availability and lower your total cost of ownership — a DeltaV DCS upgrade can start right now.

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is the manufacturer's primary tool for running margins, quality control, production and inventory management, and safety all hinged on the process control systems. A DCS upgrade is an opportunity to improve manufacturing reliability and leverage the latest technologies."



