GRAY MATTER
S Y S T E M S . L L C

The Top 10 Myths about Version Control Management of your PLC's and Control Devices

In the increasingly complex world of computer-controlled automation processes, keeping all the parts of a system on the same page can be a daunting task. Multifaceted systems made up of a variety of robots, field devices, control programs, drives, programming languages, file formats, and software applications need to be in synch for the whole process to carry on without impediment.

But systems grow and as they do, the parts of the system change or pieces are added and sometimes those adjustments go unnoticed. Undocumented updates to one facet of the system can have unintended consequences down the line. Adjustments to processes made by one worker come as a complete shock to another because the work wasn't recorded. Since change of any size can have catastrophic consequences to the way a system works, it needs to be managed and that's when version control comes in.

Unfortunately, the discussion around employing a version control software solution is weighed down by a number of myths. The intent of this document is to demystify version control and some of the surrounding misconceptions about the products, technology, and ease of use.

MYTH 1

I DON'T NEED IT — WE'VE BEEN RUNNING OUR PLANT WITHOUT IT FOR YEARS.

Without upload, download and "smart" compare, you are running your plant blind. Current version control systems provide a bullet-proof back up strategy. They give you the ability to synchronize backup and compares to a central repository even from distributed plants or departments.

Without a modern version control system in place and executing a schedule of upload, download and compare, how can you be assured that what is running your assets is what you want to be running them?

MYTH 2

MY CURRENT STRATEGY FOR VERSION CONTROL IS ADEQUATE.

Older systems that do not have a vibrant user base quickly become long in the tooth.

The speed of change in each of the control system vendors quickly renders smart compares obsolete if they are not regularly kept up to date. Some older packages are based on technologies like Microsoft's SourceSafe which has been retired.

Finally, systems that are looking at only a file's size and date are inadequate for the detailed compare that you need in order to compare the memory-resident plc program with the "authorized" one in your engineering server.

MYTH 3

VERSION CONTROL PROGRAMS TAKE TOO LONG TO IMPLEMENT.

This is simply not true with the state-of-the-art systems available today.

Current systems can be configured in one day by your staff without hiring an outside engineer or consultant to configure. We have seen system pilots up and running in two hours.

MYTH 4

VERSION CONTROL IS TOO RISKY TO IMPLEMENT AND HARD TO GET STARTED

The days of needing a huge server and a protracted software deployment project are over.

With the current generation of software technology, version control can be deployed with an extremely small footprint -- it can even be run directly from an USB stick.

MYTH 5

A VERSION CONTROL SYSTEMS WORKS BETTER IF YOU DON'T USE OUTSIDE CONTRACTORS

In today's environment of everyone working leaner, almost no-one operates without lots of outside help anymore.

That practice is why it is critical for a version control system to provide the ability to understand what changes your Systems Integrator and OEMs have made to your control system.

Another key aspect is capturing the "why" changes were made as well. This capability provides complete traceability.

MYTH 6

YOU NEED PLC PROGRAMMING SOFTWARE FROM THE PLC VENDORS AND MICROSOFT SQL SERVER TO SUPPORT VERSION CONTROL

Again, with the current generation of software technology, version control can be deployed with no need for extra Microsoft licensing like SQL or SourceSafe.

In addition, for major control vendors like Siemens and Rockwell, no programming software is required to buy or install either.

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MYTH 7

A VERSION CONTROL SYSTEM IS HARD TO LEARN AND COME UP TO SPEED ON.

With no additional training required, there are systems that can use Windows File Explorer to check in/check out programs, documents, and files. It can be just that easy.

MYTH 8

A VERSION CONTROL SYSTEM IS COST PROHIBITIVE

Costs are usually driven by a combination of software, hardware and configuration costs.

With no need for licensing vendor configuration tools like RSLogix™ or Simatic and no special software from Microsoft®, software costs are minimized. With no need to install software on clients, users can still synchronize and work offline and no huge servers to buy, hardware costs are minimized.

Finally, with a quick out of the box experience and minimal training required, implementation costs are minimized.

MYTH 9

I NEED TO HAVE A HOMOGENEOUS ENVIRONMENT

A solution that is supplied by one of the control vendors would like you to have a homogeneous environment for sure.

But this environment is not realistic either. There are too many OEM's, mergers and acquisitions to enforce a homogeneous environment today. We almost always see a blend of control devices and HMI systems.

A robust version control package will have a broad library of support for the industry leading HMI packages and PLC's.

MYTH 10

ALL SYSTEMS ARE ABOUT THE SAME

Not true.

Some version control systems deliver unique capability. For example, some systems allow multiple users to work on the same document, but also have the ability to review and integrate the right changes.

Also, the ability to compare memory resident PLC programs from a vendor like Siemens or Rockwell without the programming software loaded is very unique.

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