

Control System Migration Services

Legacy PLC, Motion, Drives & HMI



Eliminate Risk Associated with Obsolete PLC Systems

Managing the lifecycle of your control system can be a daunting risk. Migrating your existing control systems mitigates expensive and extensive downtime. A poorly executed upgrade presents the same risk. Discover how our Series 90/RX7i Migration Team can solve these lifecycle challenges with the experience to execute on schedule.



90-30







Top Reasons & Benefits to Migrate

Reduce **Downtime**



Obsolete hardware can cause downtime including:

- Security risks
- Lack of spare parts
- Time consuming troubleshooting
- Unstable connections
- Software that is difficult to navigate

Improve Throughput



Improve throughput by decreasing cycle times associated with equipment that is slower in performance

Improve Quality



Improve quality metrics and reduce scrap reduction rates/costs

Reduce **Lifecycle Costs**



Old equipment gets more expensive to maintain over time

Modernize **OT Network**



Upgrade and modernize your OT **Networking including** legacy field devices that are not ethernet capable

Benefits

- Improve reliability
- Reduced maintenance costs
- Complete system verification and as-built documentation
- Innovative process control
- Proactive implementation
- Remote support capabilities
- Easier procurement of replacement parts







Our Approach to Migrations

The TAG Solutions Migration Team has developed a proven strategy that will allow you to quickly and easily migrate from Series 90 and RX7i controllers and Series 90 I/O to an Integrated Modern Control System, while maintaining the existing field wiring and physical footprint in your control cabinet.

This approach will provide:

- A high level of confidence of on time execution backed by experience, planning and risk mitigation
- · Lower conversion time
- Minimized production downtime
- Reduced construction costs
- Reduced risk by preserving existing field wiring connections
- Lower engineering costs

The TAG Solutions Difference

- Extensive migration experience and a formalized migration strategy
- Coordination of system install with plant turnaround schedule
- Phased migration at a rate suitable to your applications and budget
- · Independent of brand affiliation
- Comprehensive project coordination engagement
- Multi-departmental support (SCADA, Electrical Engineering, Communication, Cyber Security, Measurement)
- Onsite coordination of system replacement
- Post-project support and training

Proven PLC Migration Process

SELF-ASSESSMENT SCORECARD

2 hours with TAG Solutions Engineer

- · Review of existing control system architecture
- $\cdot \ \mathsf{Identification} \ \mathsf{of} \ \mathsf{obsolete/near} \ \mathsf{obsolete}$

hardware/software

- \cdot Identification of current control system risks
- Migration cost estimates for AFE generation purposes

ONSITE ASSESSMENT

1-2 days based on plant size & potential scope

- · TAG Solutions engineers will come onsite to review your legacy control system(s)
- · Inspect your control panels, review networking infrastructure & related architectures
- Determine future state needs including remote access, virtualization & improvement options
- · Determine opportunity for improvement to takt-times and throughput

COMPILE RESULTS & DEVELOP PROPOSAL

384

1-2 days

Take the information we collected, analyze it & develop:

- Preliminary scope of work
- $\cdot \ \mathsf{Design} \ \mathsf{Basis} \ \mathsf{Memorandum}$
- Execution plan for migration including risk mitigation "cutover" plan
- · Cost estimate for the migration

PRESENT ONSITE FINDINGS & PROPOSAL

2 hours

PLC MIGRATION

PROCESS

- · In-person meeting with key stakeholders
- · Review our findings and the proposaL
- Outcome of meeting define next steps and path forward

FORMAL DESIGN

 If we agree to move forward, TAG Solutions will proceed to a design stage to build the formal design
 Once design stage is reviewed and agreed upon, TAG Solutions will host a formal kick-off meeting and begin project execution

Readiness Assessment

Reduction of Risk and Cost

Understanding the age and lifecycle of your control system and related field devices is typically a task that is not managed on a regular basis. As your equipment ages, upgrades from antiquated hardware platforms can be risky due to the complexity of system architectures used and managing of the system cutover time window. TAG Solutions has performed many of PLC, VFD, MCC, HMI, & SCADA system modernization projects and has a proven process to reduce and manage inherit risk. This self-assessment scorecard aids engineers and end-users in determining risk, complexity, and change management opportunities (people, processes, and tools) and should be completed while speaking with a TAG Solutions Subject Matter Expert.

Please rank your responses from 1-5 with 1 representing strongly disagree and 5 being strongly agree.

40-50: You're well in control of the lifecycle of your control system. Let us know if we can help in the future.

35-39: Room for cost reducing process efficiency improvements. Call TAG Solutions to help.

10-34: High degree of process inefficiency and operational risk factors. Call TAG Solutions to help.

1 Our drawing sets are easily accessible and up to date as accurate representations of the currei	it control
architecture.	
2 We have a formal asset management system for tracking what critical assets are installed in t HMI, PLC, VFDs) and their product lifecycle as it relates to preventative maintenance and obsolescence.	he facility (i.e
3 We can swap parts of the control system easily with minimal risk to production.	
4 Critical asset programs are backed up on a regular basis and program changes are being tracl	red.
5 Our control infrastructure and associated field assets are Industry 4.0/IIoT ready and can proproduction data for better business making decisions.	vide valuable
6 Ethernet is being or has been adopted as the standard control network on the plant floor.	
7 We have secure remote connectivity access to monitor and troubleshoot our control system i	emotely.
8 OT virtualization and thin clients have been adopted for plant floor applications.	
9 There is no operational risk associated with system cutover (rip and replace vs phased appro	ached).
10 We have levels of redundancy within our control systems (I/O, Controller, Applications).	
TOTAL SCORE:	



