

# System Modernization Study

## Service Description

Many plants face legacy process control systems that are reaching the end of their useful life. But defining the economic benefits and developing a compelling business justification for system modernization can be difficult.

A System Modernization Study is a proven methodology used to develop economically justified system modernization plans that meet short- and long-term business and process automation needs.

Studies are conducted by senior consultants with in-depth industry and process control system expertise and extensive modernization experience.

## Service Objectives

- Provide a roadmap to match control system performance and functionality to meet current and future business objectives.
- Develop flexible system modernization plans that will have the greatest impact on process performance, while preserving the system components that have not outlived their useful life.
- Provide a compelling financial business case for control system modernization.

## Typical Situations

- Wish to evaluate legacy control system status and determine whether new technologies could be expected to make significant improvements in plant performance
- Need for assistance in defining viable and profitable control system modernization options and plans
- Need to establish the economic costs and benefits of updating legacy process control systems

## Scope of Service

- Establishment of business and operations goals and key performance criteria
- Evaluation of existing control system performance, functionality, and reliability
- Survey of legacy system components or audit of component life-cycle status(select platforms)
- Identification and quantification of economic benefits that can be expected with new control system technologies
- Development of system modernization and migration scenarios and options
- Estimation of system hardware, software, and project implementation costs ( $\pm 30\%$ )
- Financial return-on-investment analysis for modernization options
- Preparation of multi-year control system performance, maintenance, and/or expansion plans

## Deliverables

- Onsite consulting and formal assessment by a senior Emerson Process Management consultant
- Detailed report documenting results, analyses, system modernization plans, and recommendations
- Management presentation or meeting to review and discuss results and recommendations

## Service Activities

- **Information gathering** - Prior to onsite work, an Emerson consultant will request and review a list of base plant, process, and control system information for preliminary analysis.
- **Business driver and process unit review** – Onsite meetings will be held to establish operational and process-related business goals and key performance indicators.
- **Current system status review** – An evaluation of existing control system performance and status towards meeting business goals will be conducted.
- **Opportunity identification** - Data collection and investigation to identify potential improvement sources and quantify projected economic gains will be performed.
- **Offsite analysis and report** - A detailed report to document results, analyses, system modernization plans, and recommendations will be generated.
- **Report transmittal and follow up** – A final report will be delivered and follow-up meeting scheduled to review and discuss the report.

## Service Duration

A typical System Modernization Study can take three to five days onsite, one month for final report. However, as each study will be customized to specific needs and situations, the duration will vary depending on scope and complexity.

## Service Ordering

Please contact your local Emerson sales office to retain this service. Prior to order acceptance, Emerson will issue a written proposal for your review and approval to ensure that scope, deliverables, timing, and budget meet your needs and expectations.

For additional information, you can reach us at [AAT@emersonprocess.com](mailto:AAT@emersonprocess.com)

---

©Emerson Process Management 1996—2008 All rights reserved.

For Emerson Process Management trademarks and service marks, go to: [www.emersonprocess.com/home/news/resources/marks.pdf](http://www.emersonprocess.com/home/news/resources/marks.pdf)

The contents of this publication are presented for informational purposes only, and while every effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available on request. We reserve the right to modify or improve the design or specification of such products at any time without notice. Not all services are available in all world areas nor for all Emerson Process Management, Process Systems product lines. Please contact our office nearest you for more information.