

# Automation Planning

## ***Automation Master Planning:***

Matrix Technologies, Inc. is one of the largest independent system integration companies in North America. We deliver a wide array of solutions to our customers that solve some of their toughest business challenges. While most of our customers have an excellent understanding of the technology they currently own and operate, many lack the plan and the future direction that will ensure they continue to succeed.

Similar to building a structure, a solid foundation and plan for automation are required for success. The foundation is the plant infrastructure and the plan is the overall vision for the plant floor systems for the short and long term.

We help our customers laying the foundation and designing the plan that will ensure success for years to come.

## ***A Better Process for Success:***

Every manufacturer is under pressure to reduce their manufacturing costs and to maximize their asset utilization. High energy prices and regulatory compliance are also forcing manufacturers to have a clear understanding of their manufacturing process at every point within the supply chain.

For manufacturers to remain competitive means transforming all the plant floor data in the plant into information and making that information available in the proper context to all people involved in decision making. Manufacturers must adopt a comprehensive strategy to exploit Manufacturing Intelligence and to gain a competitive advantage by effectively utilizing their assets and reducing production costs.

In order to achieve this, a systematic approach is required

- A robust network to connect the various sensors and control systems must be in place
- A long-term plan for plant systems, encompassing existing and future technologies should be defined
- A data collection and archiving solution should be designed
- Analytical tools to provide insight into the manufacturing process must be installed

## ***Industrial Networking:***

As automated control systems and IT systems converge within manufacturing facilities, it is apparent a scalable and reliable network is required to connect all these disparate sources of information to the enterprise systems. The network has to be secure to prevent cyber attacks and internal malicious or unintentional mishaps while providing superior performance. There are major differences between the control system network and the enterprise network with regard to security and traffic patterns. Control system networks are designed to maintain high levels of availability and safety while ensuring a rapid response time.

Control system networks are the most important network on the factory floor making sure that data reaches its destination rapidly and reliably. As a network is being designed and implemented, careful consideration has to be given to future needs and use of the system. It is critical that the network is designed with enough spare capacity and scalability to incorporate additional as well as newer systems without compromising performance or reliability.

Matrix Technologies, Inc. will work with you to fully understand your current and future requirements. We will design and implement a robust and secure network that meets today's needs, while anticipating tomorrow's requirements.



# Automation Planning

## ***Data Collections:***

Automation systems already collect, process, and store thousands of measurements. With networked data collection systems in place, a large amount of production can be collected at very fast intervals. It is very important to collect all the relevant production data to get a better understanding of the manufacturing process. This raw data then becomes the foundation of all further analysis. Data when combined with contextual information converts to actionable data. Operators and engineers with superior analytical tools can assess, consolidate, reconcile, and generally make sense of what all this data is telling them.

Matrix Technologies, Inc. has vast experience in multiple industries and can help you implement the best possible solution. Our significant staff, industry diversity and extensive technology and process experience enables us to identify and capture all the relevant data from different sources to provide contextual information for analysis and reporting.

## ***Manufacturing Intelligence:***

Companies with considerable data collected on their operations have the opportunity to gain valuable insight and instill a culture of continuous improvement, but only if they can harvest this data to develop new, more innovative processes. Manufacturing Intelligence provides a major opportunity for manufacturers to improve their operations and competitiveness by transforming data rich systems into valuable contextual information. This information is the backbone of deeper analysis and better decision making that leads to operational excellence.

Matrix Technologies, Inc. will assist your operational team in identifying and developing key performance indicators and metrics. These can then be deployed as part of drill-down dashboards to perform detailed analysis. Role-based reports can be developed for maintenance, quality, production, or continuous improvement teams.



*Let Matrix Technologies provide a money saving solution for you!*



www.Matrixti.com  
Phone: (419) 897-720  
Fax: (419) 897-7214

Ohio | Indiana | Colorado