

# Why is Systems Design Critical for Industrial Automation Solutions



Industrial Automation is generally accepted to be of a quality one level higher than the quality expected for consumer grade or domestic applications. Well-designed industrial automation systems increase business productivity and efficiency because they have been built for a purpose for a specific outcome and performance. When the system design is finalised by formal testing, the working solution helps with the bottom line either by directly improving productivity, improving performance of production or by providing better visibility for the organisation to make informed decisions. The same principles apply for manufacturing as they do for critical infrastructure, however an organisations price point generally drives the outcomes based on a trade-off between quality and the functional requirements.

Making decisions about how to implement software-based control systems solutions requires more knowledge and experience than how to configure a software application. A system's engineering approach to design ensures a customer's investment is well managed. The industrial automation design services provided by Parasyn help customers identify their company objectives and then match this with the right technology solution design to deliver results.

## What is Industrial Automation?

Industrial automation is a very broad term. To us, it includes applications and devices that facilitate the automation of various equipment and apparatus to automate manufacturing processes, materials handling, and quality control processes. It includes PLCs and RTUs for control, MCCs, machines and pumps, robots, and other types of equipment to increase the efficiency of plant processes.

Some industrial automation also include specialist software applications to predict machine failure, to improve energy consumption and reduce waste. Advanced process control goes one step further than traditional control systems by operating plant in a way not possible to mimic by humans. By streamlining very complex processes and making them more automated using complex models to manage how plant should operate, systems can provide exceptional performance never previously possible by human control.

## Why Does the Industrial Automation System Design Matter?

Industrial Automation design may be simple but is generally a complex set of interrelated activities.

At the very basic level, the ability to automatically turn something on or off by following certain parameters falls under this category of basic discrete equipment control. More advanced applications monitor equipment, process the data, and then adjust feedback control according to model-based calculations or less complex direct proportional error feedback. The more complex systems include many components. The trade of with complex fully automated model-based solutions is sustainability and maintenance. Even though such complex processes are essential for distilling, refinery and other industrial processes, using overly complex control on simple equipment is a complication that increased the cost to maintain assets. Parasyn has the expertise and experience in developing and designing systems to match the asset type.

## Automation Services with Parasyn

Parasyn has specialised in designing and implementing large scale SCADA and control systems for a variety of industrial uses including manufacturing, water, energy, oil and gas, and others, since 2000. Solutions design may begin at the consulting stage where ideas are shaped and then cost justified, or it may begin at design where the requirements are clear and already mapped forward to the performance outcomes.

Parasyn provides a lifetime guarantee on systems they design and then implement. When you know you have to maintain it for life, you build it better.