

WHY YOU NEED A SYSTEMS INTEGRATOR



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ARTICLE TAKEAWAYS:

1. Control your process from your desktop
2. Monitor all aspects of your casting process
3. Never make an out of spec part again

Where can you find someone who understands the data you need and how to display, capture and store it forever?

First of all let's ask "WHAT IS A SYSTEMS INTEGRATOR?"

A systems integrator is someone who can:

- Display data on HMI and computer screens
- Capture data in different formats for storage, and later dissemination
- Trends, pressures, temperature, flow and any other deviations that occur in the casting cell.
- Other analog input
- Track downtimes, maintenance, runtime hours, and waste
- Represent the real world on a screen

Secondly, how does System Integration really work?

They use Programmable Logic Controllers (PLCs) to monitor, control and capture data. This includes: digital inputs and outputs (ac or dc) - limit switches, push buttons, disconnects, pressure switches, lights, horns, solenoids, and motor-starters. Analog inputs and outputs (ma or volts) - thermocouples, pressure transmitters, flow sensors, vfd rpm, speed, amperage, voltages, valve position, counters, timers, totalizers, math computing capabilities, along with special control algorithms like pid. (closed loop control). each plc

communicates on a network, usually ethernet, which connects to an HMI (human machine interface), computers (running SCADA software) and other PLCs

We use software to program each of the PLCs and HMIs. We monitor and control the process, monitor the network, and share/store the data.

Below is an example of ethernet network layout - PLCs communicating with HMIs, drives, power monitor, and Spang SCR. Green, yellow and red backgrounds indicate status of the network, connected through ethernet switches.



The new buzz word out there is SCADA Control. SCADA is:

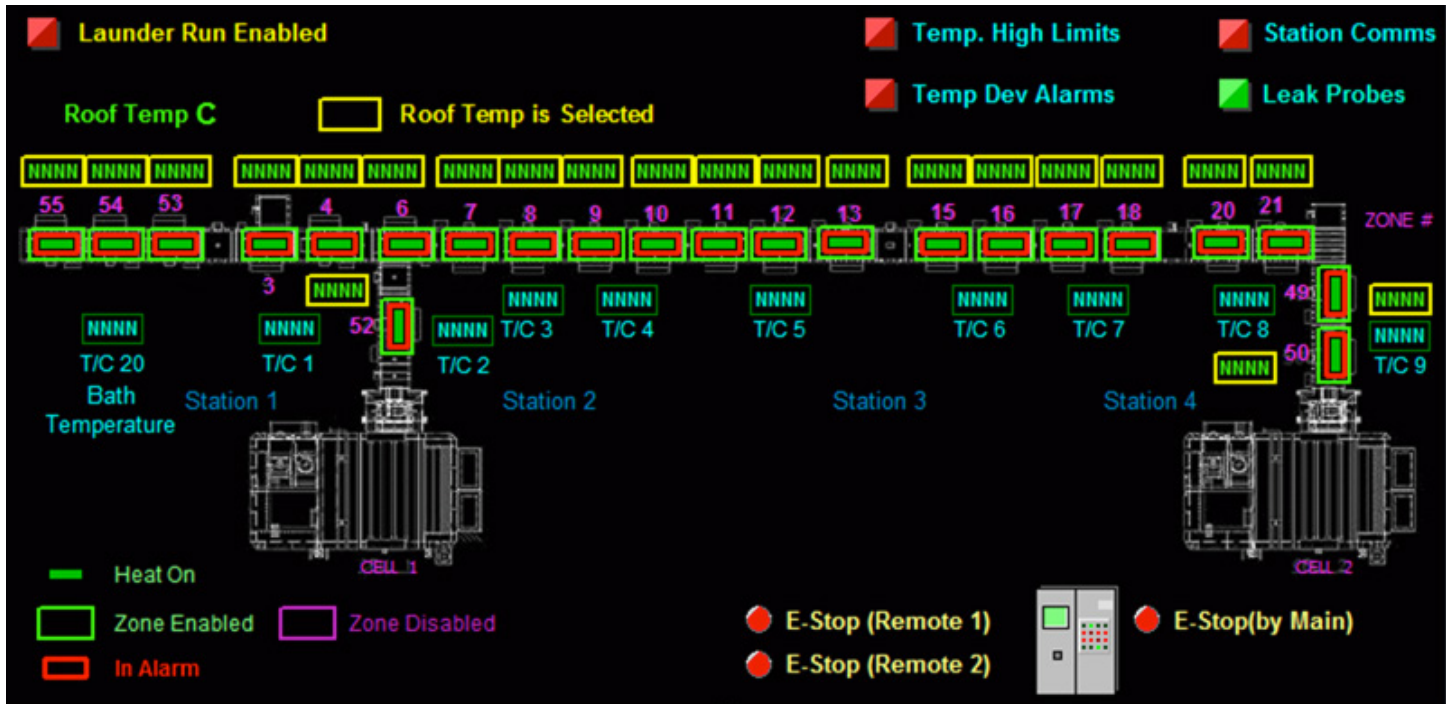
SUPERVISORY CONTROL DATA ACQUISITION

A computer, or server, connected to a network with PLCs, monitoring a system, gathering data, and alerting on alarms.

What do you need the most? Quality control, downtime logging, waste management, centralized system management, better, simplified control of your process. This means you can take a system like a launder system that is controlled by Honeywell controllers and amp meters and volt meters like this:



To a PLC and HMI controlled with this!



So the difference with SCADA controls is: Proof of quality castings. The ability to head off problems before they become issues. Your managers and staff can monitor production 24/7. The system can stop production in a cell if there is an issue and all the data is collected and stored for your protection.

You also get the added benefit of less actual downtime, reduced scrap castings, reduced customer rejects, proof of quality, reliable record keeping and proves the cost of quality.

Our Delta Control Division is second to none in programming quality installation and most of all customizing to the customer's needs - Let us show you what SCADA can do for you!



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