

Making An Impact - Use Case

Goal:

Acquire process/machine data for ERP & AI

Target Process:

Existing Process which cannot be disturbed or communicated with (i.e. no direct communication to the machine controller is available)

Objective:

Client needs to acquire process states (e.g. start, stop, faulted, waiting) for an otherwise inaccessible machine

Similar applications:

- Manual Process with no controls
- Isolated process with no communications (e.g. unsupported CNC)

Solution:

Some processes provide some discrete means of deciding a state (i.e. dry contacts open or close when a 'fault' occurs). Although potentially limited in providing the sought-after states, for the savvy engineer, there are usually occurrences that can be monitored in order to derive such states. For example, upon the start of a process a cylinder extends a clamp which remains until the process completes. By simply adding a sensor to sense the position of the clamp, we can denote a start and stop time making 'start to finish' cycle time, along with the non-running time in-between starts, a reality. By combining that time with the status of faulted, a derivation of downtime vs. up-time is realized. All that's required are the sensors; and the associated controller; and the wiring; and the programming, and the...these are the items typical vendor use cases never mention because they can't offer a complete solution.

The elliTek (real-world) solution:

The external sensor solution is a fantastically simple solution (the difference between using an EKG to monitor the heart versus open heart surgery), but only when used with the correct product set. elliTek has partnered with Turck and Banner Engineering and their top of the line IO Link and barcode scanning solutions making these items both simple to install and totally compatible with elliTek's Data Commander™ and IloTA™ data products. Sensors can be connected directly, and triggers used to create the time-based data points directly into an external database, or into the integrated database in the IloTA™. Once captured, the data is available for dashboards and reports, including the integrated dashboard tool included within the IloTA™ lineside server.