Production Line Visualization and Management

Companies often use components in their production lines that have been supplied by different manufactures. One of the biggest challenges faced by these companies is establishing a single point of control over their production line. A component of the production line often has an HMI interface that the floor operator can use to: turn on; turn off; view performance against specifications; or check alerts, but if the floor operator is not physically at the device, the information is often not actionable.

HMI – The Gateway to Information

Gaining access to the Human Machine Interface (HMI) Platforms of the various pieces of equipment in your shop or in your production line is critical to improving and optimizing your plant floor. BSoft Solutions is expert at adding modules in the HMIs of equipment to collect and transmit that data to a centralized repository (on premise or in the Cloud) and translate that data into actionable Dashboards, KPIs and Data Warehouses.

Imagine

With this information available in your Operations Control Center, the Plant Operator can obtain a real-time view of performance across disparate

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components on the plant floor. When an alert is delivered to their Operations Dashboard, they can make the quick call to continue with operations or stop until the cause of the alert is resolved. If the component consumes supplier provided inventory, the Production Supervisor can anticipate when to re-supply the component for minimal disruption. Looking at performance within specification over time provides advance warning of equipment failures.

Capabilities

- Any Data from any HMI or PLC component
- Integrated with any Back Office Data
- Across entire Plant Floor
- Across Facilities
- Securely available anywhere in the world
- Multiple Communication Options
- Multiple Communication Protocols
- Customizable Dashboards and KPIs
- Data analytics for key metrics

Affordable Solutions from BSoft

Finding the right affordable solution for our clients is a critical step in establishing a partnership. We help our clients understand the value, the solution, the costs and the complexities of any proposed solution.

Key Functionality

BSoft partners with our clients to define solutions that help them to visualize and manage their production equipment. Every customer is unique and faces unique issues and opportunities. BSoft Solutions provides focused solutions that provide our customers the ability to:

- Monitor and analyze operations according to performance specifications
- Monitor equipment usage and performance conditions
- Identify sources of operation and product quality issues
- Anticipate replenishment of equipment consumables
- Track performance of equipment across different production runs
- Track out of specification equipment utilization (down time, temperature, humidity, vibration, etc.)
- Track equipment performance across facilities
- Provide email and text message notifications on alerts/alarms

Communication Mode

Getting the data securely from the equipment to the company IT department can be a challenge. BSoft Solutions is expert at defining a secure infrastructure that meets or exceeds your company's security standards and protocols. BSoft can configure your solution to transfer data from the HMI to a data repository within your network or to a cloud-based repository. The data is transferred using secure communication channels and secure protocols to protect data integrity. Depending on the capabilities of the HMI, BSoft can design a custom solution using one or more of the following mechanisms:

- **Hard Wired** – BSoft can push defined data through a direct connect between the HMI Platform and your secure network.

- **WAN** – BSoft can push defined data through a secure WAN connection between the HMI Platform and your secure network.

> "The system provides simple, useful, actionable information to monitor usage and equipment performance in order to drive down costs, optimize load, increase productivity and reduce unplanned maintenance."
>
> - Director of Operations
>   US Based Major Equipment Manufacturer

- **Cellular** – BSoft can establish a secure connection over a cellular network between the HMI Platform and your secure network.

- **Thumb Drive** – If your security protocol will not allow connection to the device, a process involving periodic data capture via a Thumb Drive is also an option, although real time data acquisition is not possible in this scenario.

Communication Options

BSoft provides four communication options with our PLVM solution:

- **Push Data Stream** – This is the primary communication option. It takes data & alerts and pushes the data through your secure network to the Operations Control System.

- **Pull Data Stream** – This option allows data to be pushed from the HMI to a secure location in your network then it is pulled to the Operations Control System.

- **Command Data Stream** – This provides for operating commands to be sent to the equipment.

- **Update Data Stream** – This allows for diagnostics and upgrades to be sent to the HMI.

Working Together

BSoft uses an Agile approach in our projects. We separate our

engagements into four phases:

- **Discovery** – We drive to a mutual understanding of what our client wants to accomplish from a business and technical perspective.

- **Design** – We create a proof-of-concept to ensure everyone is on the same page.

- **Build & Deploy** – We create and test the solution, train the users and deploy the solution into production.

- **Support** – BSoft can support the solution and provide the complete infrastructure to host and maintain the data repository and web interface.

BSoft can provide the complete infrastructure to host and maintain the data repository and web interface for support. We operate in a true 2N, Tier 3 facility that is SSAE 16/SAS 70 Type II compliant.

> "From the RFP phase, through the project development and on to the testing phase, I was extremely pleased with response times and willingness to accommodate and implement the modifications we required."
>
> - Director of Manufacturing
>   US Manufacturing Company