Automation For A Connected World

Enhancing Valve Testing Systems with Real-Time Data Intelligence

Customer Background

A leading manufacturer of valve test stands and special-purpose machines (SPMs) serving the pump and valve industry was facing growing demands for performance, transparency, and digital traceability in its testing operations. Known for delivering high-precision systems, the company needed a smarter and more integrated way to manage its testing work flows.

Business Challenge

With increased expectations from end-users and rising competition, the company recognized several limitations in its existing testing infrastructure:

- **Lack of real-time visibility** into test processes.
- **Manual report creation**, leading to time delays and potential human errors.
- **No automated graphical representation** of test data for analysis or customer records.
- **Limited access control,** raising concerns about operational security.
- **Inability to perform offline analysis** for quality improvement or troubleshooting.

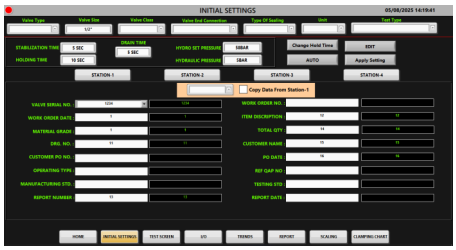
These challenges affected efficiency, consistency, and the ability to scale operations while meeting evolving customer expectations.

Implemented Solution

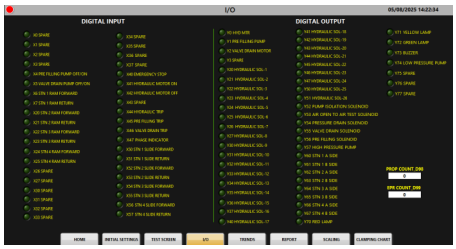
To address these challenges, **LUBI Electronics** stepped in with a **comprehensive automation solution,** powered by its **cutting-edge products** and a highly experienced **industrial automation development team.** The solution was designed to enhance test efficiency, enable live monitoring, and ensure secure, structured reporting.

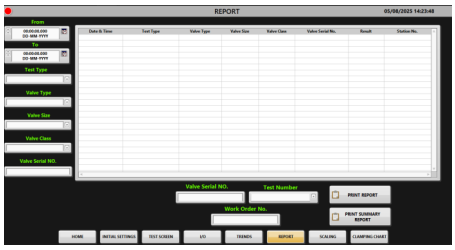
LUBI's solution brought a seamless interface and smart system logic into the customer's machines.

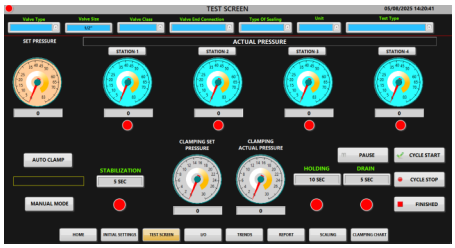
Core Features Developed by LUBI:



- **Initial Screen Data Display** – All testing parameters and configuration available upfront.
- **Live Test Data Monitoring** – Real-time data tracking for active process monitoring.
- **Automated Graph Generation** – Clear, visual graphs after each test cycle, with auto-generated **Final Reports**.
- **Live Input/Output Signal Status** – Ensures accurate component function visibility.
- **Offline Trend Analysis** – Access to historical data & insights for quality improvements.
- **Automated Report Suite:**
  - Test Report
  - Offline Graph Report
  - Summary Report
- **Calibration Interface** – Easy-to-use module for test system accuracy.
- **Clamping Chart Mapping** – Dynamically created based on input screen selections.
- **Hidden Internal Screens** – For system-level functions and diagnostics.
- **Password-Protected Access** – Ensuring only authorized users can manage critical operations.







Results Achieved

After LUBI's implementation, the customer saw tangible improvements in process efficiency and data handling:

- **50% reduction** in testing and reporting cycle time.
- **100% accuracy and traceability** through automatic reports and real-time data.
- **Improved security and role-based access control** to critical functions.
- **Data-driven decision-making** enabled through trend analysis.
- **Enhanced customer trust** due to transparent and digitally verifiable test outputs.

Products & Technology Used

- Industrial Automation Controllers
- HMI Systems
- Custom Software Interface by LUBI Development Team
- Data Acquisition Modules
- Secure Architecture for Role-Based Access

Conclusion : What Makes LUBI the Preferred Choice

This solution wasn't just a technical upgrade—it was a strategic transformation that aligned with the customer's growth vision. We provide our customers with...

- Advanced automation products with proven industrial reliability.
- Deep understanding of test system requirements.
- Tailor-made development with flexibility and future-readiness.
- Secure architecture to safeguard operational data and functions.
- Seamless integration into existing systems with minimal disruption.

LUBI Electronics not only delivered the technology but also ensured smooth execution, training, and support—helping the customer **scale confidently and deliver next-gen value to their clients.**

Smart. Scalable. Secure.
LUBI is redefining industrial test automation—one solution at a time.