

Systems Integration of Process Expansion

CLIENT: **CONFIDENTIAL**
MARKET: Pharmaceutical | Biotech | Life Sciences
LOCATION: Owings Mills, MD
SERVICES:

- Project Management
- On-Site Services
- Quality & Commissioning
- Power Distribution
- Control Panel Design & I/O Drawings

COMPLETED: 2018
VALUE CLASS: \$250,000

ABOUT: *The Client was a Jersey-registered specialty biopharmaceutical company with an operational base in the United States. Brands and products included Vyvanse, Lialda, and Adderall XR. The Client was acquired by Takeda Pharmaceutical Company in 2019.*

PROJECT DETAILS

The Client utilized its Maryland campus as a mixed use production facility. To continue meeting the rising demand for its products, Shire needed a significant expansion to its process suites for the solid dosage manufacturing of proprietary products. The Maryland manufacturing site, with the expansion of its process capabilities, was no longer going to offer contract manufacturing services. Prior to the expansion, production suites largely relied on non-integrated systems. Given the complexity and size of the project, the Client chose TAI to lead the automation effort and to help realize opportunities to increase efficiencies in the manufacturing process. The Client needed engineering, design, documentation, specification, programming, and start-up assistance to complete the integration phase of this process expansion.

KEY RESPONSIBILITIES

- Project Management
- Engineering & Design
- Power Distribution
- Control Panel Design & I/O Drawings
- (400+) I/O Points
- HMI/SCADA Development
- PLC Programming
- Validation Documentation
- Commissioning



EXECUTION & DELIVERABLES

TAI's considerable experience in automated systems brought intimate knowledge of Allen Bradley systems to the project as a certified systems integrator. The project required TAI to provide the PLC programming, HMI/SCADA development, and OIT software development to implement the process control system detailed in the P&IDs and functional requirement specifications, as well as in the CSDS and SDS.

The project utilized Allen Bradley PLC-5 and SLC-5/05 processors and associated remote I/Os to handle the control system components. The process control system consisted of approximately 400 I/O points, (13) new PanelView Operator Interface Terminals with a supervisor's OIT that was running Wonderware software to enable the supervisor to monitor the entire process.

TAI's controls engineer acted as the lead technical engineer for this project. They were responsible for design, programming, integration, and startup as well as developing the complete validation documentation.