ABB ENERGY INDUSTRIES SERVICE

PLC Absorption
Providing a consistent and resilient DCS for life

Our vision is to keep customers for life

Our mission is to wrap energy industry customers in CARE…. delivering highest value to customer in the form of safe, secure, reliable and highest performing operations by being an innovative partner with the best services and the best people with the strongest domain knowledge.

The Situation | The Problem | The Solution | The Benefits
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The costs associated with islands of automation are driving plants to remove these inconsistencies as they look towards competing in the future | Inconsistencies affect a system’s robustness and increase the cost to train personnel, and maintain and modernize a system | Restore consistency by Absorbing PLC controlled subsystems back into the DCS and matching logic, graphics, hardware and tools | Increased resiliency, robustness, and Operator Effectiveness. Reduce costs in lifecycle mgmt., training, system maintenance & future enhancements

Reduce risk of your diverse control infrastructure with resiliency and robustness

As your diverse control infrastructure ages, without a significant spend on training programs and lifecycle mgmt., the risk of operator error, costly downtimes, plant inefficiencies, and cyber security issues increase. By reducing the islands of automation within your operation, you can build a resilient and robust control ecosystem.

With PLC Absorption, you can see immediate benefits with operator effectiveness due to reduced complexity and consistency, but you will also see savings on your future upgrade projects with fewer isolated systems.

**The Situation**

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**The Problem**

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**The Solution**

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**The Benefits**

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**PLC Absorption**

**Focus on HMI Consistency**
The application’s HMI is modernized to use the plant’s Graphics standards (faceplates, symbols, navigation philosophy, etc.)

**HMI Consolidation into DCS**
Full visibility/control from control room 3rd Party Operator Workstation and Panels can be replaced with DCS Clients

**Application is modernized & upgraded**
Uses the plant’s DCS logic standards (control libraries, logic macros etc.)

**Replace PLC with DCS Controller**

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**Create an expanded foundation for the future with ABB DCS and your current standards**

Modernizing the PLC application and consolidating the HMI provides a consistent operational philosophy

Minimizing the need to consider multiple systems and philosophies facilitates plant improvement

Having a consistent approach to data and operations results in continuous savings as the plant evolves into the future

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### PLC Absorption
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#### Modernize
- Modernize the PLC applications for consistency & upgrade hardware

#### Consolidate
- Consolidate PLC-related HMI systems into the ABB DCS

#### Replace
- Replace or remove the PLC-related panel HMIs with DCS Clients or ABB panel HMIs

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**Simplified process increases project quality, reduces risk, and enables the most value for price**

When performing the **PLC Absorption** project, ABB tries to reuse existing cabinets/enclosures (e.g., placing new control & I/O in the same locations) whenever possible. This approach can minimize costs, wiring and the time to commission. Since HMI Consolidation enables visibility and control from the centralized control room, it also provides an opportunity to simplify the architecture and remove localized clients or Panel HMIs.

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**Reduce commissioning time and risk with Simple Hardware Upgrade Strategies**

- Reuse existing cabinets. Facilitate I/O wiring
- Flattened architecture. Native communication of all data to HMI
- Can replace Panel HMIs with DCS clients. Remove special tools/interfaces

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**Our PLC portfolio is designed to provide the most value to customers with ABB DCS**

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<th>PLC Integration</th>
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<td><strong>HMI and DCS Integration</strong></td>
<td><strong>Focus on HMI Consistency</strong></td>
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<td>HMI is via Panels</td>
<td>Add Visibility to DCS HMI</td>
<td>HMI Consolidation into DCS</td>
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<td><strong>Application Logic</strong></td>
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<td>Minimal changes</td>
<td>Application unchanged</td>
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<tr>
<td>Replace PLC with AC500</td>
<td>Keep 3rd Party PLC</td>
<td>Modernized &amp; upgraded</td>
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**INCREASING VALUE**
by Achieving the Highest Level of Consistency