

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 costs associated with islands of automation are driving plants to remove these inconsistencies as they look towards competing in the future

The Problem

Inconsistencies affect a system's robustness and increase the cost to train personnel, and maintain and modernize a system

The Solution

Restore consistency by Absorbing PLC controlled subsystems back into the DCS and matching logic, graphics, hardware and tools

The Benefits

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.

Improve lifecycle management and reduce costs with:

- A single set of engineering tools, logic libraries, HMI symbols, faceplates etc. and single point of service through ABB Care contracts
- Reduced number of spare parts
- Simplified plant training (fewer systems, philosophes and tools)

Increase operator effectiveness from improved:

- Consistency in HMI philosophy, graphics, faceplates, navigation and data presentation
- Consistency in alarm presentation and abnormal situation management
- Ability to access & consolidate all data in a single place for improved reporting, root cause analysis, rapid decision making

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

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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1

Modernize

Modernize the PLC applications for consistency & upgrade hardware

2

Consolidate

Consolidate PLC-related HMI systems into the ABB DCS

3

Replace

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

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.



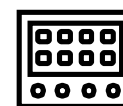
Reduce commissioning time and risk with Simple Hardware Upgrade Strategies



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

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

	PLC Replacement		PLC Integration		PLC Absorption
Application HMI					Focus on HMI Consistency
HMI and DCS Integration	HMI is via Panels		Add Visibility to DCS HMI	HMI Consolidation into DCS	HMI Consolidation into DCS
Application Logic	Minimal changes		Application unchanged	Minimal changes	Modernized & upgraded
Controller	Replace PLC with AC500	Replace PLC with DCS Controller	Keep 3rd Party PLC	Replace PLC with AC500	Replace PLC with DCS Controller
INCREASING VALUE					
by Achieving the Highest Level of Consistency					