



Facilitate troubleshooting with a better understanding of the current state of your system

EcoStruxure Control Engineering - Monitoring

Unplanned downtime is an issue that all manufacturers hope to avoid as it can quickly become expensive due to loss of productivity. When downtime does occur, plant maintenance staff need quick access to accurate system information in order to be able to diagnose and resolve the problem without losing too much time.

EcoStruxure Control Engineering - Monitoring is a real-time diagnostics solution to support troubleshooting of PLC-based control systems. The solution retrieves the live variable values from the system and displays them on a simplified representation of the control programs, to help understand the current state of a system more quickly and easily.

Benefits

Facilitate troubleshooting of your control systems

Reduce unplanned downtime with the support of a clear representation of your system's data flow and the live variable values.

Increase the autonomy of operational teams by giving them a tool that makes it easier to understand the system without having to look at the code itself.

How it works?

EcoStruxure Control Engineering - Monitoring is a cloud-based application accessible through a web browser. It is an agnostic tool compatible with all major PLC vendors.

To deploy EcoStruxure Control Engineering - Monitoring, two components are required:

- 1. The PLC program data** - The latest version of the program needs to be imported, either manually by the user or automatically from a version management system, so that the tool can generate the simple data flow interface that is coherent with the current version in production.
- 2. Communications set up** - To enable the real-time communication from the PLCs to the tool, it is necessary to set up either a communication server with OPC DA or direct communication with Modbus TCP.

Once these are in place, the live diagnostics can be launched in one-click from the web platform.

Benefits

Improve the efficiency of your troubleshooting response

No need for any code instrumentation or to pre-define fault cases, the tool will show the live values of all variables.

The live diagnostics can be **accessed remotely** for quicker troubleshooting support from the process expert or service provider.

The tool can be **integrated with existing production tools**, such as SCADA, version management systems, and communication servers for greater efficiency.

Facilitate troubleshooting with EcoStruxure Control Engineering - Monitoring

The screenshot shows the EcoStruxure Control Engineering - Monitoring interface. At the top, there are navigation tabs: 'List of variables', 'Watch/React flow', 'Start/Stop Monitoring', 'Set variable clauses', and 'Connection status'. Below these, a 'Selected variable' dropdown is set to 'E_111_pos_vn'. The main area displays a data flow diagram with nodes and connections. A 'Live variable values' panel on the left shows a list of variables with their current values: 'E_111_pos_vn' (TRUE), 'E_111_pos_vn' (FALSE), 'E_111_pos_vn' (TRUE), 'E_111_pos_vn' (FALSE), and 'E_111_pos_vn' (TRUE). A 'Cross references of selected variable' panel on the right shows a list of variables with their names, memory references, types, and comments. A 'Launch the live diagnostics in one click' button is visible on the right side of the interface.

Start with your chosen variable and dynamically navigate through the data flow of your application

Live variable values
Boolean values represented in green (TRUE) and red (FALSE).
Strings and integers displayed in text bubble.

Launch the live diagnostics in one click

Information about the selected variable
Name, memory reference, type, and comment

Cross references of selected variable
Displayed in ladder or literal

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