





SCADA stands for "Supervisory Control and Data Acquisition". SCADA is a type of process control system architecture that uses computers, networked data communications and graphical Human Machine Interfaces (HMIs) to enable a high-level process supervisory management and control. SCADA systems communicate with other devices such as programmable logic controllers (PLCs) and PID controllers to interact with industrial process plant and equipment. SCADA systems form a large part of control in Automation Systems. SCADA systems gather pieces of information and data from a process that is analyzed in real-time (the "DA" in SCADA). It records and logs the data, as well as representing the collected data on various HMIs. This enables process control operators to supervise (the "S" in SCADA) what is going on in the field, even from a distant location. It also enables operators to control (the "C" in SCADA) these processes by interacting with the HMI.

The SCADA system by Bosch Rexroth is known as WinStudio-SCADA. It enables the Monitoring and gathering of data for all the processes in real-time which helps to maintain efficiency and process data for smarter decisions. It directly interacts with devices such as sensors, valves, pumps, motors, and more through human-machine interface (HMI) software. It facilitates learning of how SCADA interfaces with PLC and other industrial automation devices.

WinStudio-SCADA

System Specification

- Web interface: Allows you to visualize screens **«** for a standard web browser (Thin Client).
 - Number of variables 500. «
 - .NET Controls. «
 - Online and remote management of the «application and configuring (download / upload, commands, system, and network diagnosis as well as debugging).
 - An integrated development environment with toolbars, dialogs, menus, and customizable toolbars.
 - Allows modification of an application during the runtime (online configuration).
- A library of more than 100 symbols and dynamic objects, such as frames, icons, motors, pipe elements, meters and gauges, LED-style indicators, text and numeric displays, control symbols, sliders, switches, pumps and valves, pushbuttons, vehicles.