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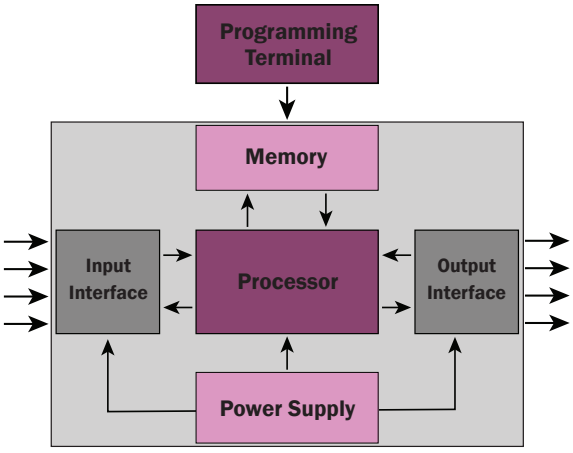
TOOLS OF THE TRADE

PLC

CONCEPT PLC stands for Programmable Logic Controller. It is a type of industrial computer used to control and automate machinery and processes in various industries such as manufacturing, oil and gas, food and beverage, and many others. PLCs are designed to withstand harsh environments and operate reliably in real-time, making them ideal for controlling complex systems.



The PLC

BACKGROUND

The history of PLCs dates back to the late 1960s when the need for a more efficient and flexible control system in the manufacturing industry arose. Initially, relay logic was used to control industrial processes, but it was expensive and time-consuming to design and maintain. The introduction of the first PLC by Modicon in 1968 revolutionized the industry as it provided a reliable and cost-effective alternative to relay logic. The early PLCs were large, expensive, and programmed in low-level languages, but advances in technology led to the development of smaller, more powerful, and easier-to-program PLCs. Today, PLCs are widely used in various industries to control and automate complex processes, and their flexibility, reliability, and ease of use have made them an essential component of modern industrial control systems.

REAL WORLD CONNECTIONS

PLCs are used to control assembly lines, robots, and other machines. For instance, a car manufacturing plant might use PLCs to control the conveyor belts that move the car bodies through the assembly line, the robots that weld the different parts together, and the machines that paint and polish the cars. PLCs can monitor and control the operation of each machine, ensuring that the right parts are used, the correct sequence of steps is followed, and the production process runs smoothly. PLCs can also communicate with each other and with a central control system to provide real-time data and alerts, allowing operators to quickly identify and address any issues that arise.

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