# Automation

It is believed that the term automation was first coined in the 1940s by a Ford Motor Company engineer describing various systems where automatic actions and controls were substituted for human effort and intelligence. At this time, control devices were electromechanical in nature. Logic was performed by means of relays and timers interlocked with human feedback at decision points. By wiring relays, timers, push buttons, and mechanical position sensors together, simple logical motion sequences could be performed by turning on and off motors and actuators.

With the advent of computers and solid-state devices, these control systems became smaller, more flexible, and less expensive to implement and modify. The first programmable logic controllers were developed in the 1970s and 1980s by Modicon in response to a challenge by GM to develop a substitute for hardwired relay logic. As technology improved and more automation companies entered the market, new control products were developed. Today, myriad computerized logic control devices developed by hundreds of different manufacturers exist in the industry.