**Visual Validation of PLC Program using Virtual Simulator**

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**Abstract.** This article discusses the programmable access interface between visual studio and the Siemens PLC simulator (S7-PLCSim). The communication interface adopts S7-ProSim COM object control. By using the S7-Prosim, you can write Microsoft Visual Studio-based software application code to change the PLC input value, read the PLC output value, change the position of the PLC control mode switch, and other controller tasks. Visual studio-based virtual modeling software applications can be used to validate PLC programs in real time. So that virtual lab-based PLC program validation is possible to develop based on Microsoft Visual Studio with a PLC interface using the COMS7-ProSim object.

Keyword :plc, s7prosim, simulator.