

As a certified [Siemens Solution Partner](#), we often act as a pioneer in converting machines, and integrating new technology into older systems. Just recently, we were involved in a project where we provided engineering services to a global leader in automotive clamping and connection solutions. This involved [converting machines](#) with existing obsolete Siemens S5 PLCs to the latest Siemens S7 control platform. For those of you in our community that sit a bit further away from the nitty gritty details of control systems engineering, Siemens S5 is an automation system based on programmable logic controllers (PLCs) that was first introduced in 1979, which has long since been replaced by Siemens with its newer S7 family of PLCs. Many factories across the globe still deploy the older S5 technology, which is becoming increasingly problematic, as it is not easy to support nor is it a simple task to convert.



The S5 product series was discontinued 10+ years ago, and recently the factory technical support and replacement parts support has been discontinued. Maintenance of these control systems becomes more difficult and expensive on a daily basis, resulting in costly and possibly prolonged production downtime. It is a wise decision to migrate from Siemens S5 controllers to Siemens S7 as the S7 comes with increased automation system functionality, availability and efficiency.

In this particular project, we brought the necessary expertise and preparation required for the labor intensive project where we provided Siemens program conversion services using the latest version. The program conversion – based on the standard statement list format to conform to the customer’s standard machinery – will be used as the template for future conversions of the same equipment for the customer. Patti Engineering is also updating the electrical documentation.



The Siemens S7 PLC controllers can be expanded in flexibly at any time and really provide tailored solutions for whatever requirements it must follow. There is a wide range of interface options based on the application chosen in a given project; therefore, in addition to the conversion, Patti Engineering was responsible in this project for adding a new operator interface. Our engineers reviewed the HMI requirements (immediate and future) with the customer’s personnel prior to start of design. The new operator interface will replace the existing antiquated interface push buttons, timers, panel meters and thumb wheel controls. Additionally, the new hardware will provide the ability to add functionality (visualization or control) in the future.

The design of the new operator interface panel – and its layout – is a vast improvement on the old 1970’s style interface. It is a more intelligent, user-friendly operator interface that allows for easy training and more efficient operator control.

After the initial project is completed, Patti Engineering provided onsite engineering assistance where we collaborated with the customer’s personnel to install and start-up the converted software and hardware. We also thoroughly verified the operational functionality of the entire conversion.

Are you risking your operations to an obsolete Siemens S5 PLC? If so, you should contact us as soon as possible to discuss an upgrade path – email Info@PattiEng.com or call (248) 364 – 3200.