GeKu obtains its automation solutions even faster

A new communication block between SIMOTION and Adept robot controls makes it simple to connect Scara robots.

Parameterizing instead of programming

GeKu Automatisierungssysteme has been developing and implementing automation solutions for plastic, rubber and metal processing applications in the widest range of sectors worldwide since 1995. One of the most demanding projects involves a complex production line for two versions of injection molded contact assemblies with various inserted parts (contacts) for a renowned company that supplies parts to the automotive industry.

The line, split up into three areas, essentially comprises 14 automatic punching machines for contact elements, seven Scara robots for precisely inserting these into the tool carriers, several welding stations, a multi-cavity injection molding machine, where parts are automatically supplied and removed using gantry robots, various assembly and testing units and a packing station. All parts of the system are controlled from a single PC-based SIMOTION P350 motion controller from Siemens.

Straightforward and efficient engineering

When engineering its scalable automation systems that can also be subsequently expanded, for years now, GeKu has been employing fast parameterizable axis configuration based on scripting. In a project employing a fully expanded system (for GeKu systems, this involves 24 axes), the machine builder selects the actually used axes, and then enters the required drive power ratings (where relevant, gain factors). All other settings are automatically generated. This reduces the axis configuration time, for example, for GeKu 3-axis gantry robots with Sinamics drives, to just a few minutes. 16 Scara robots from Adept Technologies (Cobra s600 robots are used in this application) can be just as simply integrated in a comparable user-friendly fashion. As a result of the freely programmable motion, this permits an even simpler machine design and installation to achieve a higher degree of line flexibility.

In cooperation with ADEPT, Siemens developed a block for the communications between SIMOTION and the Adept robot control systems. This provides the basis for simple and flexible parameterization of the traversing paths of
all robots via interpolation points on the operator screen of the system control. The machine builder and the user only have to use one single system, which not only simplifies handling, but also the training. Further, remote diagnostics and maintenance minimize possible downtimes – and maintain the availability and productivity at a high level.

**Open for everything**

The SIMOTION P350 PC-based motion control system is open, both regarding the hardware as well as the software, for integrating almost any additional device via the integrated industrial Ethernet or PROFINET interfaces. These devices include RFIDs, cameras, labeling and testing systems. This also applies to the direct connection to database systems, for instance, for static process controls (SPC), or the integration of individual PC software. By simply linking and parameterizing Scara robots, GeKu can leverage additional rationalization potential, and in the future, can quickly implement customized, highly flexible automation systems.

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