KPA Automation softPLC Embedded Tools
Software components for embedded platform

Focused on IEC 61131-3, KPA Automation softPLC technology is designed for all automation solutions, from machinery, controllers and drives manufacturers, to system integrators and machine builders. This technology is based on straton® PLC core and fulfils the 4 key requirements we apply to our products: Small, Smart, Simple and Speedy.

- **Simplify the configuration**
  KPA Automation softPLC Integrated Development Environment (IDE) includes a hardware device and fieldbus configuration tool for various kinds of networked I/Os or protocols, and enables to describe networks as configuration trees and to wire variables to the I/O channels of hardware devices.

- **Secure applications - Redundant System**
  All key application information is stored in one unique block of memory and all the redundancy mechanisms are available to make a hot restart of the application. A standard redundant implementation through Ethernet is delivered with PLC engine of KPA Automation softPLC, using a proprietary protocol over the link that needs no specific programming or configuration.

- **Reduce engineering time**
  KPA Automation softPLC project automation tool allows you to automate the import/export of information from your databases or other tools directly into the application (variable definitions and I/O configurations but also application programs generated automatically or copied from existing templates).

- **IEC 61131-3 standard programming**
  KPA Automation softPLC development environment is a set of powerful text and graphic editors for IEC 61131-3 languages: Sequential Function Chart (SFC), Function Block Diagram (FBD), Ladder Diagram (LD), Structured Text (ST) and Instruction List (IL).

- **Commissioning - Debugging**
  KPA Automation softPLC provides built-in simulation within the development environment in various modes of operation such as cycle by cycle, step by step, breakpoint and console mode.

- **Softscope**
  An integrated scope using a real-time high-speed protocol can be configured to monitor key variables within the application to provide detailed debug information with high precision.

- **Distributed Application**
  PLC engine of KPA Automation softPLC permits real-time exchanging of data among different runtime systems through Ethernet. The event based protocol technology is used and it ensures high performance and very low network traffic at runtime.
**Communication**
KPA Automation softPLC supports a wide range of industry standard protocols for various sectors and application areas including automotive, building automation and energy:
OPC UA (Server and Client), Modbus (Master and Slave, both TCP and serial), EtherCAT Master, PROFINET Controller.

**Solutions**
- Energy
- Motion Control and Drives
- Science and Education
- IEC 61131-3 embedded
- Gateway
- Fieldbuses
- IoT connectivity

---

**Runtime**
KPA Automation softPLC

Cross Platform Compiled Code

softPLC core
Drivers
EtherCAT
Modbus
OPC UA
Motion
MQTT
PROFINET

App logic
Configurations
EtherCAT
Modbus
OPC UA
Motion
MQTT
PROFINET

**Design**
KPA Automation softPLC Studio

App logic
IEC languages
Debuggers
PLCopen function block
Fieldbus configuration
EtherCAT
OPC
Motion Control
Modbus
MQTT
PROFINET, ...

---

**Custom Development**
koenig-pa GmbH offers specific software development for customers who require additional support for integrating our products into their applications or solutions.