KPA Automation softPLC   (based on straton® PLC core)

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.
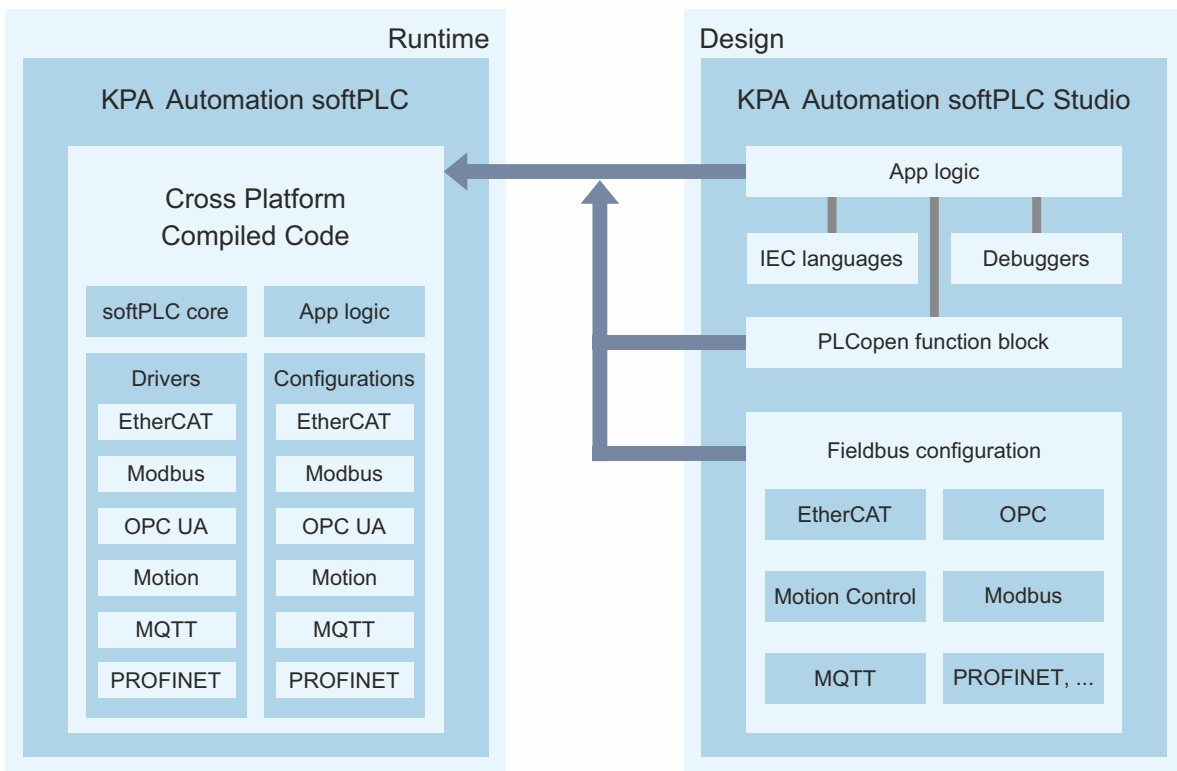
■ **Distributed Application**

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	Design
KPA Automation softPLC	**KPA Automation softPLC Studio**

Runtime — KPA Automation softPLC

Cross Platform Compiled Code

softPLC core	App logic

Drivers	Configurations
EtherCAT	EtherCAT
Modbus	Modbus
OPC UA	OPC UA
Motion	Motion
MQTT	MQTT
PROFINET	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.

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