COPA-DATA, keinig-pa GmbH (KPA) and TenAsys® Corporation have joined their expertise to provide a complete Programmable Logic Controller (PLC) Reference Platform for customers who wish to develop high-performance EtherCAT® and motion controllers while making use of PLCopen function blocks for motion programming.

This solution allows users to concentrate on their competencies in programming automation & process control applications including data acquisition, processing and motion control.

The KPA EtherCAT Master provides for the capabilities to connect any sensor, actuator and drive, while the KPA Motion functions are made available through integrated PLCopen function blocks within the straton PLC.

The diagram depicts all components of the vendors involved to realize the complete solution on just one platform.

**PLCopen function blocks within straton IDE**

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**Introducing new PLCopen based motion control platform**

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**Sample Screenshot of integrated KPA motion function blocks**

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**IDE / HMI**

Windows

- straton Editor
- KPA Motion Configuration
- KPA EtherCAT Studio

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**RTOS Runtime Environment**

- User Application
- straton PLC Engine
- KPA Motion function blocks
- KPA EtherCAT Master Driver

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**rt NIC**
Reducing your work time, the installation of your device is guaranteed on time. straton tools are based on the IEC 61131-3 standard, are available in international languages and allow perfect compatibility with your software. COPA-DATA provides a team of experts able to guide you during the process.

**straton PLC Integrated Development Environment**

The straton Integrated Development Environment includes several tools as a fieldbus configuration tool, an analog signal editor and editors compliant with the five languages of the IEC 61131-3 Standard. Very powerful tools are provided for online debugging and simulating the IEC 61131-3 application. straton includes a wizard that builds a monitoring application for the project.

**straton PLC runtime**

straton runtime combines all the expertise and the technology necessary for efficient functioning of automation processes, and for the configuration of logic data. Installed on a platform, it allows the execution of logic programs, based on the IEC 61131-3 standard, and automatically gathers the required data. Updates and add-ons are regularly provided as a free download for users on our website.

koenig-pa GmbH is striving to ensure conformity of its products with the latest trends in IT and industries by relying on profound knowledge and expertise in various operating systems, hardware platforms and fieldbus support. This provides cross platform “ready to use” solutions for process automation.

**KPA Motion**

- Linear and coordinated multi-axis motion
- Low latency, on-the-fly trajectory calculation
- User-defined kinematic models
- Built-in integration with robotics simulation software

**KPA EtherCAT Master**

- High performance, low memory footprint
- Versatile functionality exceeding ETG standard classes
- Online bus configuration update
- Web UI/OPC UA interface for IoT applications

For more than 35 years, TenAsys products have been the base operating system software on which many manufacturing automation systems have been built. Increasing computational capacity of PC technology has led to increasing the number of application workloads while reducing the overall number of discrete processing systems.

**TenAsys® INtime® – Hard real-time operating system environment**

Combining mixed workloads, deterministic and general purpose, is a primary benefit of the INtime RTOS leading to substantial cost savings by removing redundant hardware. The ease of which straton, KPA Motion and KPA EtherCAT Master integrate using INtime software demonstrates the power of the functional building block approach producing scalable and powerful solutions on standard PCs.