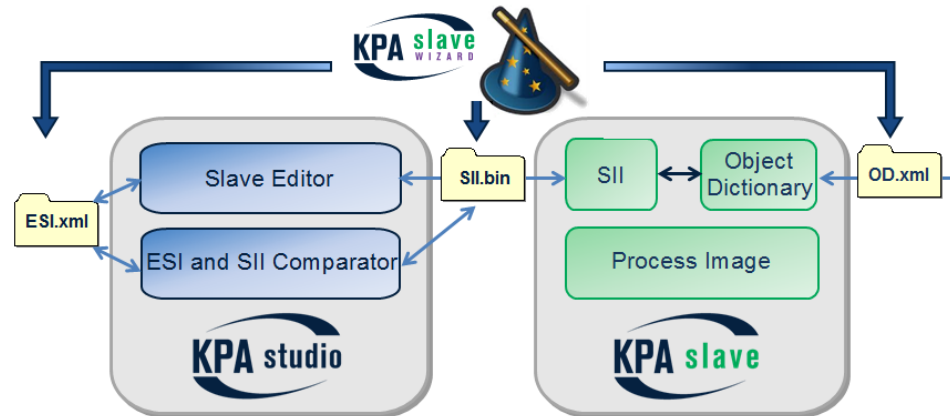




KPA EtherCAT **Slave Stack Development Kit (SSDK)** is a complete tool chain containing the KPA Slave Stack itself, KPA EtherCAT Studio and KPA EtherCAT Master for Windows and other types of OS. It is designed to run on several microcontrollers, CPUs or DSPs. Additionally, KPA offers one year assistance in conformance testing, technical support and update.



## 1 KPA EtherCAT Slave Stack

- Written in C having powerful cross platform API.
- Already adapted to hardware platforms (x86, PPC, ARM) and certain operating systems like Linux, Xenomai, SYS BIOS, QNX, VxWorks, Windows, INtime, RTX, etc.
- KPA Slave Wizard creates data structures for PDOs and Object dictionary according to any profile.
- SII Editor is a development-tool in KPA EtherCAT Studio for editing slave's eeprom(SII) and saving consistently as xml(ESI). Reading slave's info from ESI, binary file or from slave and saving SII data to binary file or load to slave.
- ESI and SII Comparator detects differences to compare SII content acquired directly from a slave or provided in a file with highlighted differences.

## 2 Delivery

- KPA SSDK Basic with CoE, FoE
  - KPA SSDK Standard with EoE, SoE, VoE and dynamic OD generation, additionally to Basic
- Both include:
- Stack in source code and manuals
  - KPA Studio Premium with Slave Wizard and KPA Windows Master
  - support and maintenance for one year (can be extended any time)

### 3 KPA EtherCAT Slave Stack advantages

Feature	KPA Slave Stack
Number of supported I/O SMs	Not limited in the stack
Process Images processing	API functions for data exchange between Process Images and objects (usually call of one function is enough)
Object Dictionary creation	Creation in application code or loading from an standard OD.xml
Binding objects with variables	Each object's entry can be bound with individual variable (by its pointer)
CoE object parameters	All parameters are supported, the processing is implemented in the stack
Mapping flexibility	No difference for user between fixing and not fixing mapping
CoE SDO processing	Full support in the stack (including complete access, segmented transfer, etc.)
Slave stack usage simplicity	Slave application using KPA API is clear and transparent
SDO and state-change events	Callbacks for SDO and state change events are supported and can be set/removed at runtime
Slave stack library	Thanks to Operating System Abstraction Layer (OSAL) slave stack is ported in to many OSes and EtherCAT slave core is cross platform and by design support big and little endian as well as 8/16/32/64 bit CPUs
Ethernet tunneling	EoE with Ethernet routing and packet tunneling is available as part of OSAL for certain OS platforms

**koenig-pa GmbH**  
Im Talesgrund 9a  
91207 Lauf a.d. Pegnitz  
Germany  
[www.koenig-pa.de](http://www.koenig-pa.de)

**Contact**  
email: [sales@koenig-pa.de](mailto:sales@koenig-pa.de)  
tel.: +49 9128 725 614 (Feucht)  
tel.: +49 9128 725 631 (Feucht)  
fax: +49 9128 725 407 (Feucht)

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