# KPA EtherCAT Master Development Kit

**.konig**

KPA EtherCAT Master Development Kit (MDK) enables OEMs to integrate KPA EtherCAT Master functionality. The MDK is available for various platforms and any of the following real-time operating systems (OS).

INtime  KEN⊖MAI  Linux  QNX SOFTWARE SYSTEMS  RTX Real-time Windows IntervalZero  VxWorks  Windows
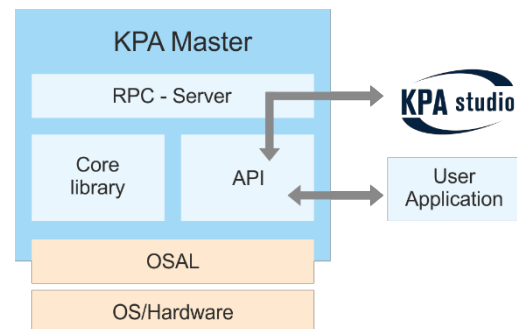
Notes: some OS like Windows XP, CE6/7, OnTime RTOS-32, PikeOS, RTAI are ported, but not actively supported.

## 1    Introduction

The MDK consists of up to seven parts.

### 1.1    Master integration package (MIP)

- Master Core API
- Operation System Abstraction Layer (OSAL) (optionally in source code)
- Remote Procedure Call (RPC) Server (optionally in source code)
- Remote Procedure Call RPC Client (optionally in source code)
- More than 20 samples in source code and documents:
    - Master architecture, white paper
    - MDK manuals, programmers guide
    - API (Application Programming Interface) help



### 1.2    Master runtime package (MRT) with licenses

- Binaries and user manuals (development manuals included in MIP)
- 2x KPA EtherCAT Master Standard Licenses (ETG 1500 "class A" master)
- 1x KPA EtherCAT Master Full (ETG 1500 "class A" including all FP and Extensions)

### 1.3    EtherCAT Studio executables

- KPA EtherCAT Studio Premium run-time including all plug-ins and user manuals for configuration and diagnostics of EtherCAT® network
- 1x KPA EtherCAT Studio license

### 1.4    MDK tutorials

- How to use KPA EtherCAT Master for selected OS
- How to use KPA EtherCAT Studio with Master for selected OS
- How to configure EtherCAT network, DC, modules and other specifics

### 1.5    Support and maintenance (S&M)

- Technical support and updates of EtherCAT Master/Studio for selected OS with access to Build Portal and Ticket System for one year.
- Prolongation on annual base upon request.

### 1.6    Optional IP-Cores and drivers (depending on target platform and OS)

- Encrypted Binaries of IP-Cores
- OS dependent drivers in binary and optionally source code

### 1.7    Optional Build portal

- KPA EtherCAT Master functionality customization
    - feature packs
    - extensions
- custom OSAL implementation (own OS support)
- custom BSP selection/implementation
- custom toolchain (specific compiler versions)

**Optional Products based on MDK** (see separate documents): OSAL in source code, Motion Development Kit.

## 2   MDK and MDK Trial comparison

| Item | Criteria | MDK | MDK trial |
|---|---|---|---|
|  | Purpose | Development | Evaluation |
| 1 | Master Integration Package (MIP) | Yes | Yes |
| 2 | MDK Tutorials | Yes | Yes |
| 3 | Licenses for Master Runtimes (MRT) | 3 [1] | Trial [2] |
| 4 | KPA EtherCAT Studio License | Premium unlimited | Premium 3 months |
| 5 | Support & Maintenance [3] | 1 year | Startup support |
| 6 | FPGA IP-Core(s) with drivers | encrypted IPs | Board spec. image [4] |
| 7 | Optional Build portal for OS | 1 year | 3 months |

1) 1x Full license and 2x Standard license.

2) Trial Master works for one hour in OPERATIONAL and cannot be licensed.

3) S&M-conditions you find on our customer portal area.

4) Upon request.