

# Product Release Notice

# KINGSTAR 3.4

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## General Availability Release Date

April 6, 2018

## Product Overview

KINGSTAR products are designed for industrial machines requiring motion control and positioning systems. KINGSTAR's all-software approach sets it apart from other machine control solutions.

Using the EtherCAT standard; the power of Industrial PCs; and the Windows operating system, enhanced by IntervalZero's RTX64 hard real-time software that transforms Windows into a real-time operating system (RTOS), you can create software-only, PC-based machine controllers that lower the costs of industrial machines while delivering excellent precision and performance.

There are two product lines: **KINGSTAR Soft Motion** and **KINGSTAR EtherCAT**.

- **KINGSTAR Soft Motion** is a complete software solution that creates PC-based machine controllers with premium precision and performance.
- **KINGSTAR EtherCAT** provides support for CANopen over EtherCAT and simplified configuration of EtherCAT networks.

## New Features and Resolved Issues

### KINGSTAR Soft Motion

- Integrates IO-Link master device support into KINGSTAR. [KS-343, KS-466]
- Adds support for CANopen. [KS-582]
- Adds support for Automatic Device Specification (ADS) over EtherCAT. [KS-639]
- Allows manual setting of linked devices. [KS-674]
- Improves I/O read and write protections to ensure data can be correctly read. [KS-733]

- Supports RTX64 3.3 with Update2. [KS-739]
  - Supports INTEL Skylake i9 X Series systems.
  - Supports INTEL Xeon scalable processors.
  - Improves subsystem performance on systems that support Memory Bandwidth Allocation (MBA) by implementing a dedicated RTX64 bandwidth.
  - Improves subsystem performance on systems that support Cache Allocation Technology (CAT) by allocating RTX64 L3 cache from a non-system-wide shared cache.
- Resolves an issue regarding group protections for an axis being incorrectly verified. Verification now happens in `MC_GroupEnable` instead of `MC_AddAxisToGroup`. [KS-712]
- Resolves an issue regarding buffers not being continuously updated in group mode. [KS-707]
- Resolves an issue regarding the status of an axis not being changed after it is removed from a group. [KS-709]
- Resolves an issue regarding the wrong error returned when an axis group is enabled and an associated axis is already used in another group. [KS-711]
- Resolves an issue regarding `GetLinkStatus` returning an incorrect error code for an invalid parameter. [KS-718]
- Resolves a number of issues within the .NET API interface regarding functions being incorrectly linked to functions in underlying libraries. [KS-672, KS-673, KS-677]
- Resolves an issue regarding the Win32 interface function `SetSlaveEoeIp` causing an abnormal application termination. [KS-680]
- Resolves an issue regarding the Win32 interface function `MC_WriteBoolParameter` not supporting a parameter value of `FALSE`. [KS-704]
- Resolves an issue regarding `MC_ReadAxisError` not always providing the correct error when a real axis is connected. [KS-684]
- Resolves an issue regarding commands not being aborted when the emergency stop of a drive is triggered. [KS-686]
- Resolves an issue regarding the `mcKiStoppedOnly` and `mcKdUseInternalPos` functions not correctly reading values. [KS-691]
- Resolves an issue regarding the `MotionProfileType` being changeable while an axis is in motion. [KS-731]

- Resolves an issue regarding calling halt or stop during a deceleration over shoots the target. [KS-741]
- Resolves an issue regarding halt and stop not taking move directions into account, where halting or stopping a backward moving axis cause forward decelerating motion. [KS-751]
- Resolves an issue regarding reading SDO not returning any data if the device data length exceeds the requested length. [KS-752]
- Resolves an issue in the .NET Class Sample regarding the resetting of `JogForward` and `JogBackward` if the motion fails. [KS-715]
- Resolves an issue in the .Net Api Interface Sample regarding the positive and negative moving directions being the same. [KS-716]
- Adds support for new hardware:
  - EtherCAT I/O modules:
    - DECOWELL EC-HH00-C1NN [KS-720]
  - EtherCAT couplers:
    - Balluff BNI0077 IO-Link master [KS-700]
    - Beckhoff EL6224 IO-Link terminal [KS-697]
    - Beckhoff EL6751 CANopen master terminal [KS-474]
    - Beckhoff EL7041-1000 stepper motor terminal [KS-532]
    - Beckhoff EP6224 IO-Link master [KS-698]
    - Beckhoff EP6228 IO-Link master [KS-699]
    - Phoenix Contact AXL E EC IOL8 DI4 M12 6P IO-Link master [KS-701]

## KINGSTAR EtherCAT

- Integrated IO-Link master device support into KINGSTAR. [KS-343, KS-466]
- Adds support for CANopen. [KS-582]
- Adds support for Automatic Device Specification (ADS) over EtherCAT. [KS-639]
- Allows manual setting of linked devices. [KS-674]
- Adds supported for new hardware:
  - EtherCAT I/O modules:

- DECOWELL EC-HH00-C1NN [KS-720]
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## Availability

KINGSTAR 3.4 Soft Motion and KINGSTAR EtherCAT are available beginning April 6, 2018 through Partners and by contacting [KINGSTAR Sales](#) or (781) 996-4481. Evaluation Downloads can also be requested [here](#).

We look forward to comments and feedback. If you have any recommendations or wish to suggest any product enhancements, please contact [Product Management](#).