

# ADVANCED MOTION CONTROL SOLUTIONS FOR PACKAGING AUTOMATION



Authorized Solution Partner



**CYBERNETICS  
AUTOMATION  
SOLUTIONS**

# Motion Perfect 5

Design, Develop, Test, Deploy and Secure

## Servo Drive Support

- Stand-alone or EtherCAT based drive commissioning
- Simple setup of commonly used parameters
- Tuning tools and control mode selection
- Display and edit EtherCAT profile

## EtherCAT Diagnostics

- Graphical view of network, either linear or network topology
- Graphical indication of device status
- Diagnostic view to show network status registers

## IEC Editor

- Improved ladder usability in free form ladder (FFLD)
- Global data types and global variables across all IEC tasks
- Single step debugging

## Robot Programming System (RPS)

- Easy setup of Trio SCARA robots
- New 3D models for Trio SCARA robots
- Improved 3D visualization setup allowing direct association with robot

## Packaging Machine Setup

- Guided setup for vertical form fill and seal machines
- New high order polynomial CAM function

## Controller Tree

- Improved navigation to EtherCAT axes
- Added global data type and global variables for IEC tasks
- Improved grouping

## Flex Slice system

- Firmware update to selected FlexSlice modules via EtherCAT

## Uniplay

- Added support for Recipes, user defined Alarms and MODBUS RTU
- Updated image Toolbox for HMI designs

## TrioBASIC Editor

- Added INCLUDE to program via drag and drop
- Support for 'STATIC' values
- Colour indication of search result in scroll bar

## SCARA Robot and Robot Programming System

Trio's SCARA deliver precision, speed, and reliability for demanding packaging applications. The integrated robot programming system simplifies complex movements through intuitive teach pendant functionality and offline programming capabilities. With built-in kinematics for various robot configurations, the system eliminates complex mathematical calculations, allowing users to focus on application logic.

The seamless integration between motion controllers and robotic systems enables synchronized operations between conveyors, product handling, and packaging processes, significantly reducing integration time and engineering costs.



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# Products

**Flex-6X Nano** is a compact yet powerful motion coordinator supporting up to 64 axes with EtherCAT networking. Features high-speed position locks, flexible I/O connectivity, and onboard programming memory. Ideal for space-constrained packaging applications requiring precise synchronization.

EtherCAT



**Flex-7** is an advanced motion controller supporting up to 128 axes with multi-tasking capability via EtherCAT, with update rates down to 125µs. Flex-7 has separate cores dedicated to motion and communications combined with Gigabit Ethernet.

EtherCAT



**PC-MCAT-2** is an innovative 'Motion + PC Solution'. A choice of Intel processors from Celeron through to core i3 - core i7 is used to drive a high performance motion controller and a compact PC that can run user applications under Windows.

EtherCAT



The **MC6N-ECAT** is a high performance Motion Coordinator dedicated to running remote servo and stepper drives via EtherCAT. It is based on the 1GHz i.MX7 Dual ARM Cortex A7 Core Processor supporting up to 64 axes of motion for ultra precise axis resolution.



**UNIPLAY HMI Trio's** range of Human Machine Interfaces (HMI) improves control and visualisation over motion-first automation solutions. The UNIPLAY HMI range provides plug-and-play integration with Trio's motion controllers and programming environment.



**DX3**, the single-axis AC servo drive, is the most optimised entry level solution with excellent performance and practical control functions. DX3 has a power range from 50W to 7.5kW and various communication options. DX3 is fully integrated into Trio's application development tool, Motion Perfect.

EtherCAT



**DX4** servo drives offer drive and motor packages that provide performance and dependability, optimised to do more with less. The DX4 comes in 3 frame sizes with power ratings from 50W to 3kW. The DX4 is fully integrated into Motion Perfect.

EtherCAT



**DX5** dual axis drive modules come in 2 compact frame sizes and combined with the power supply units can be configured for up to 16 axes with power ratings from 400W to 750W. It is designed to be matched with the MXL motors and accessories. DX5 is fully integrated into Motion Perfect.

EtherCAT





## Reasons to use the Trio Solution

- Faster time to market
- Template based programming
- Key vertical focus
- Reliable, efficient & modular system
- Productivity with mechatronics fundamentals
- High level of program security
- Trend setting technology
- Easy to integrate with dynamic consumer behaviour
- Economical Solution

## Applications for Packaging Industry



Bottling



Capping



VFFS / HFFS



Shrink Wrap



Case Erector



Converting



Blister Packaging



Flow Wrap



Palletizing



Cartonners



Inspection



Labelling



Robotics



Printing



End of Line

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