

The smart control unit motion control solution is dedicated to modularization, functionalization and integration for intelligent equipment manufacturing.

**ESTUN** hopes to go forward hand in hand with all the partners globally with the development of the equipment manufacturing industry!



## OPEN PLATFORM

ESTUN  
AUTOMATION

### Support multiple communication protocols

RS232/485、Modbus RTU、Modbus TCP/IP、EtherNet IP、Profibus、Devicenet、CC-LINK、Profinet I/O、and UDP

### Secondary development

Support high-level languages such as C#, VB, C++, Labview, DELPHI

- ▶ Entry level program minor modification
- ▶ 64-bit floating point arithmetic
- ▶ Diverse procedures, multitasking
- ▶ Expressive language

Trio BASIC

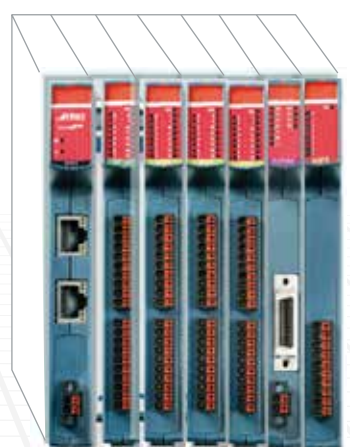


22-way  
multi-threaded task

IEC  
61131-3

- ▶ Function block diagram (FBD)
- ▶ Ladder diagram (LD)
- ▶ Structured text (ST)
- ▶ Sequential function chart (SFC)
- ▶ Toolbox & Variable Definition
- ▶ Motion function library

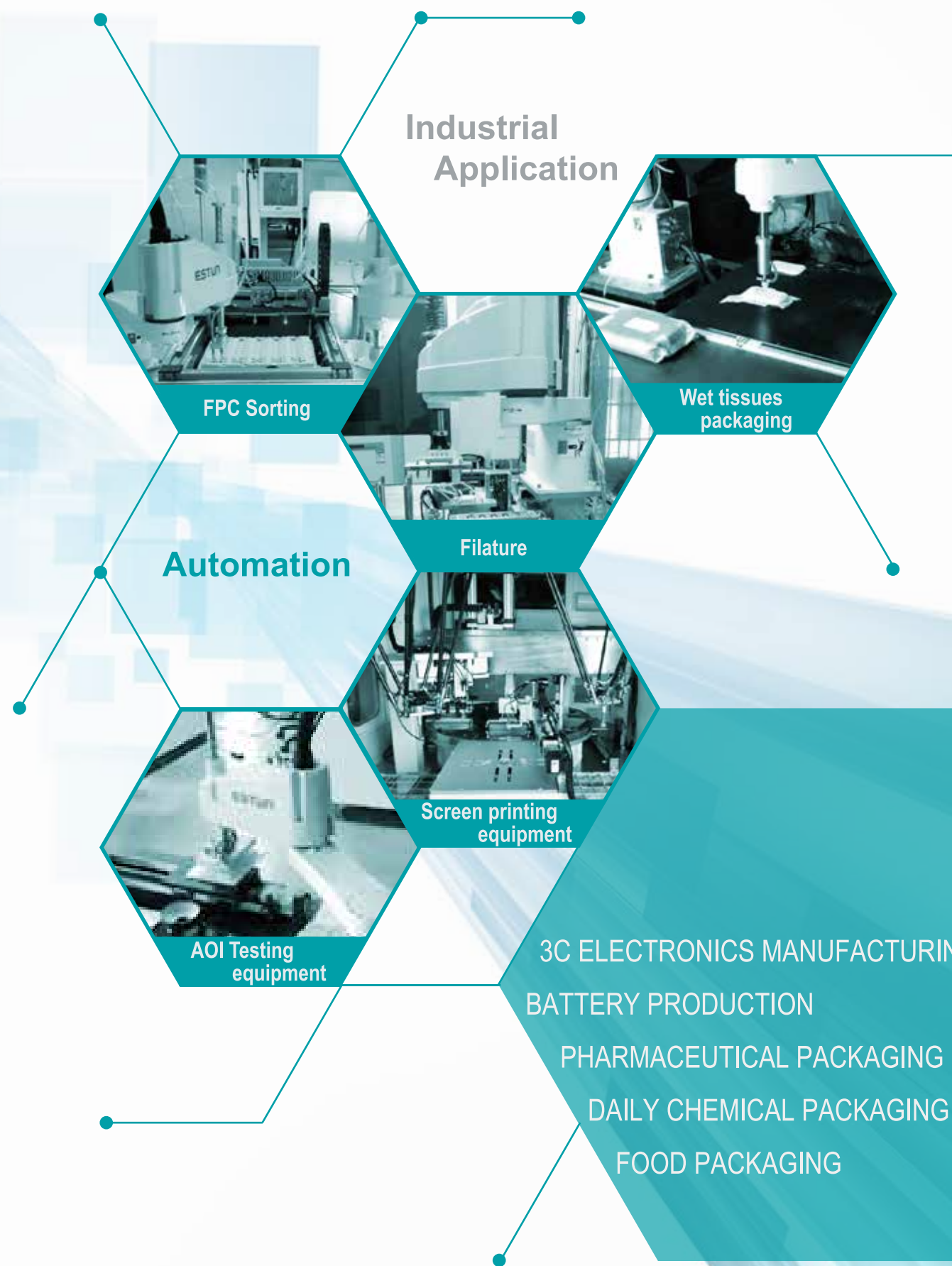
- ▶ Distributed I/O module, arbitrary expansion, communication speed up to 100Mb
- ▶ Support a variety of input and output modules (digital, analog, encoder / pulse, thermocouple, etc.)
- ▶ Compact structure and space saving
- ▶ Supports up to 1024 I/Os



Flexslice  
System

## APPLICABLE INDUSTRY AND CASES

ESTUN  
AUTOMATION



ESTUN  
AUTOMATION

ALL SOLVED  
BY ESTUN

Euclid Labs  
3D Visual and Robotics

**Smart Control Unit  
Motion Control Solution**

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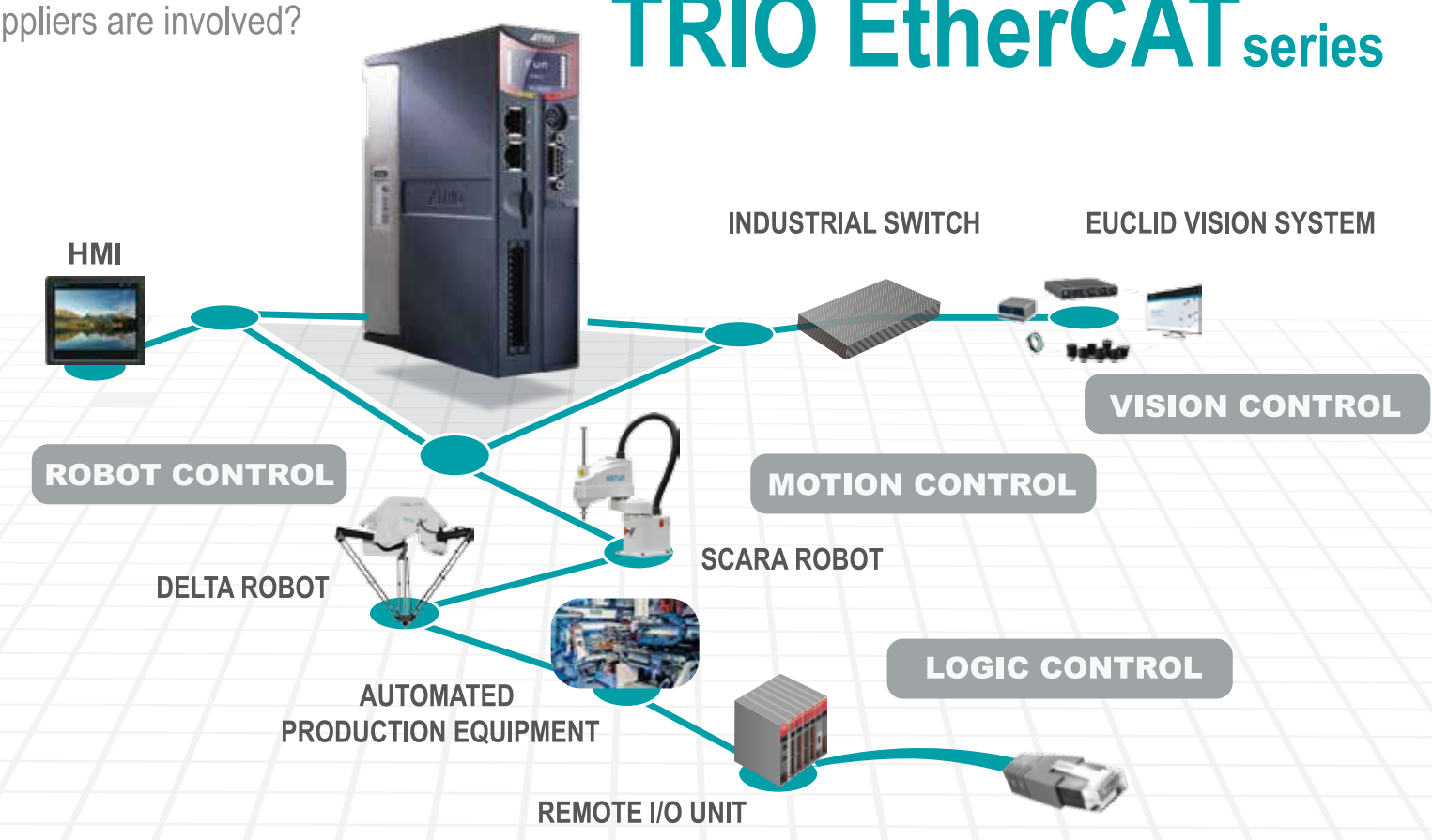


# SMART CONTROL UNIT MOTION CONTROL SOLUTION

# OUR ADVANTAGES

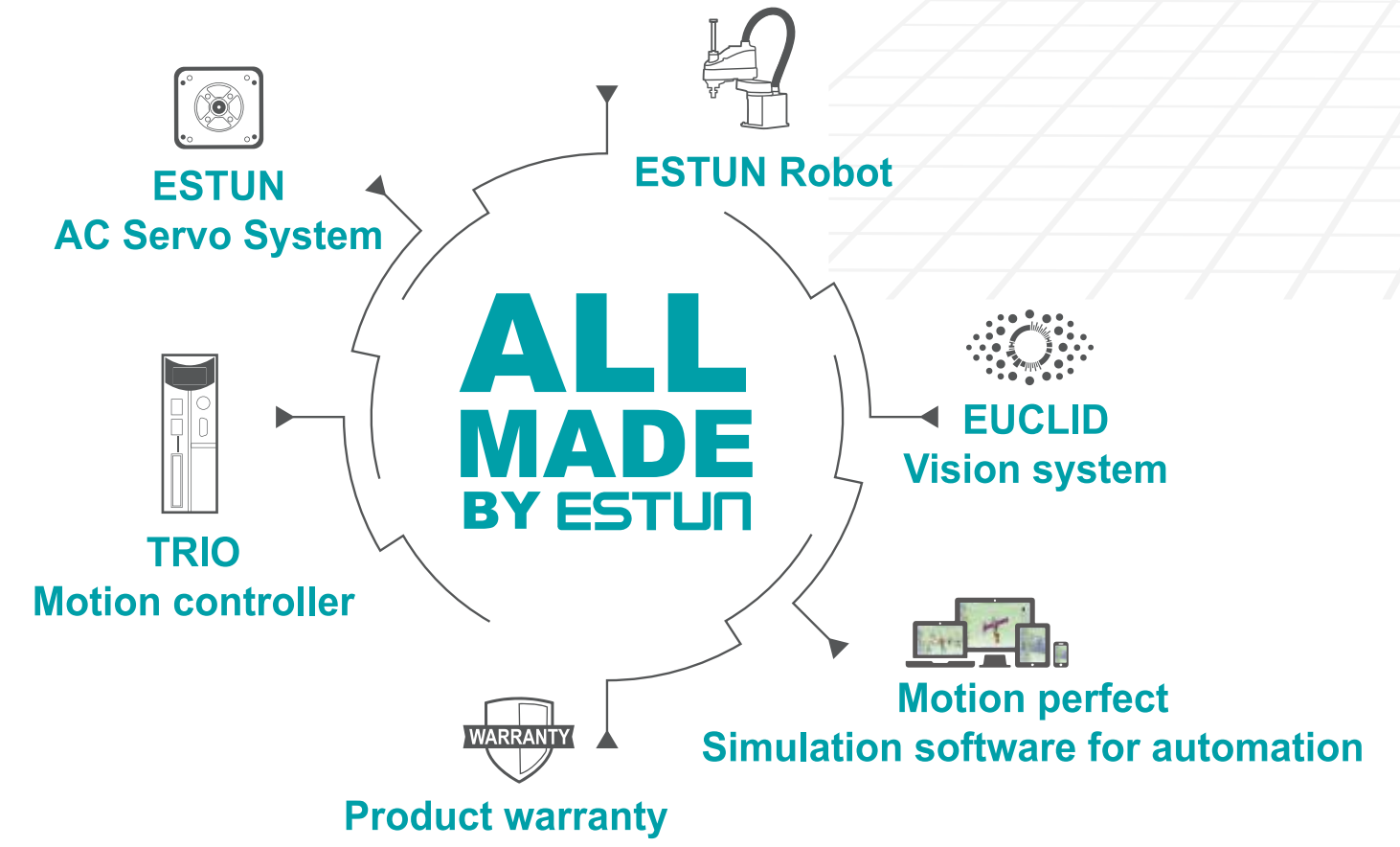
- Is debugging really awkward because the automated production line design cycle takes too long?
- Is it hard to realize standard operations and set up because of diversified equipment control layers?
- Is communication becoming cumbersome and inefficient because so many suppliers are involved?
- Does the robot application matched not so well with the original equipment?
- Is it hard to make non-standard equipment modular and standardized?

## Main controller TRIO EtherCAT series



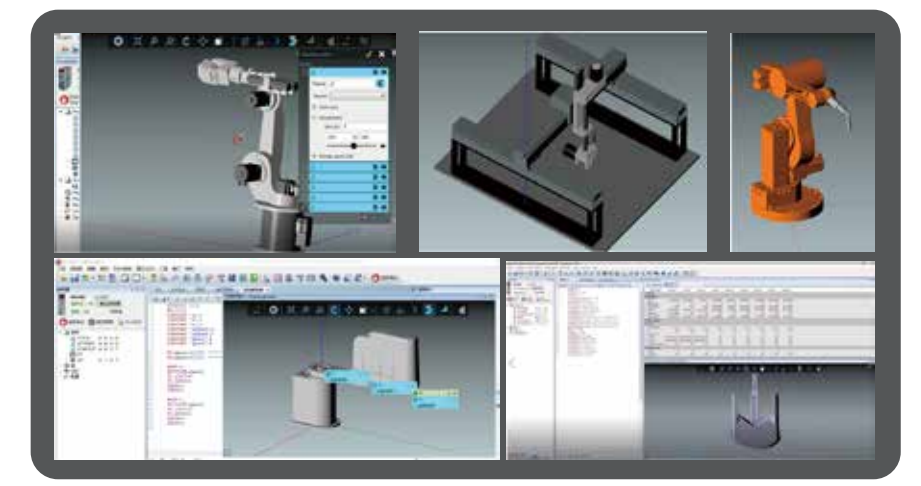
## DO YOU HAVE SUCH TROUBLES?

ESTUN SMART CONTROL UNIT MOTION FOR CONTROL SOLUTION SOLVES THE ABOVE TROUBLES AND ENABLES YOU TO BUILD AN AUTOMATED PRODUCTION LINE IN VERY SHORT TIME AND WITH HIGH EFFICIENCY. The core competence and solution are formalized by combining Estun's TRIOcontroller platform, ROBOTS, AC servo systems as well as the VISION systems. In this solution, single controller handles multiple robots, servo axes, vision system and PLC function. Therefore, Estun is providing customers with comprehensive and competitive automation solutions.



## Solution configuration Performance characteristics

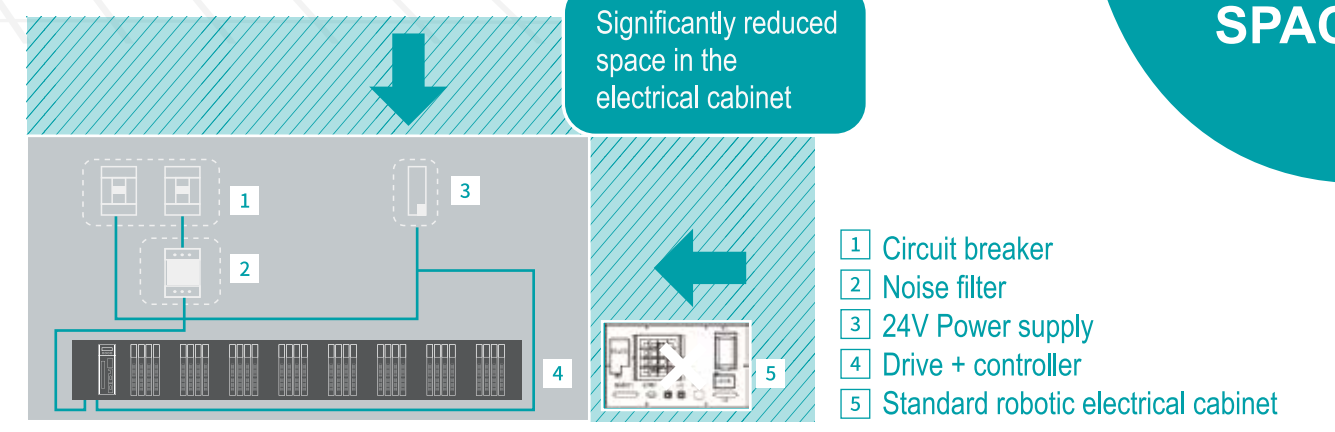
TRIO Controller	Estun Servo	Estun Robot	EUCLID Vision System
MC4N 32AXES (INCLUDING ROBOT AXIS)	ProNet series EtherCAT bus servo system	SCARA X4 OR DELTA X2	Data communication by DMA or socket directly No need for data analysis
MC664/664X 128AXES (INCLUDING ROBOT AXIS)		SCARA X6 OR DELTA X4	
PC-MCAT 64AXES (INCLUDING ROBOT AXIS)		SCARA X3 OR DELTA X2	



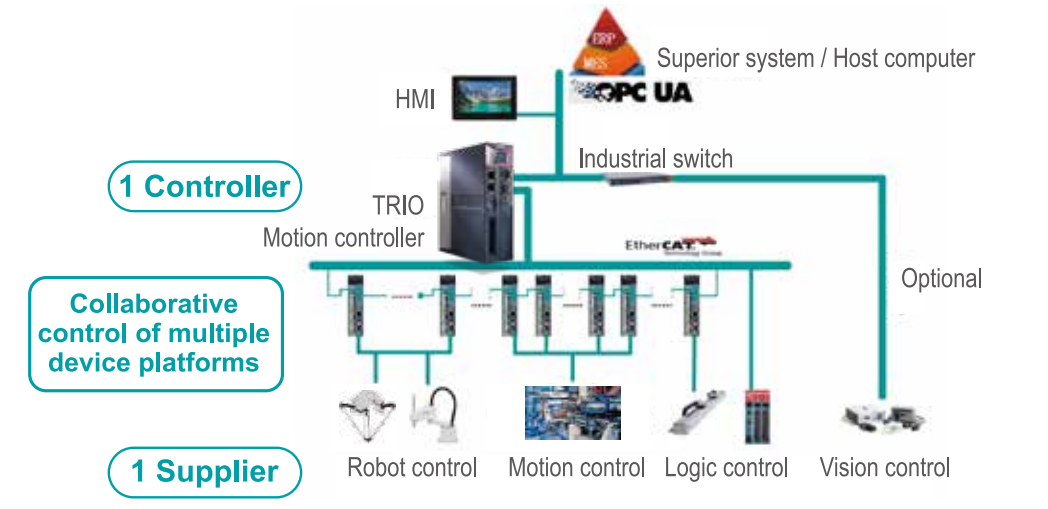
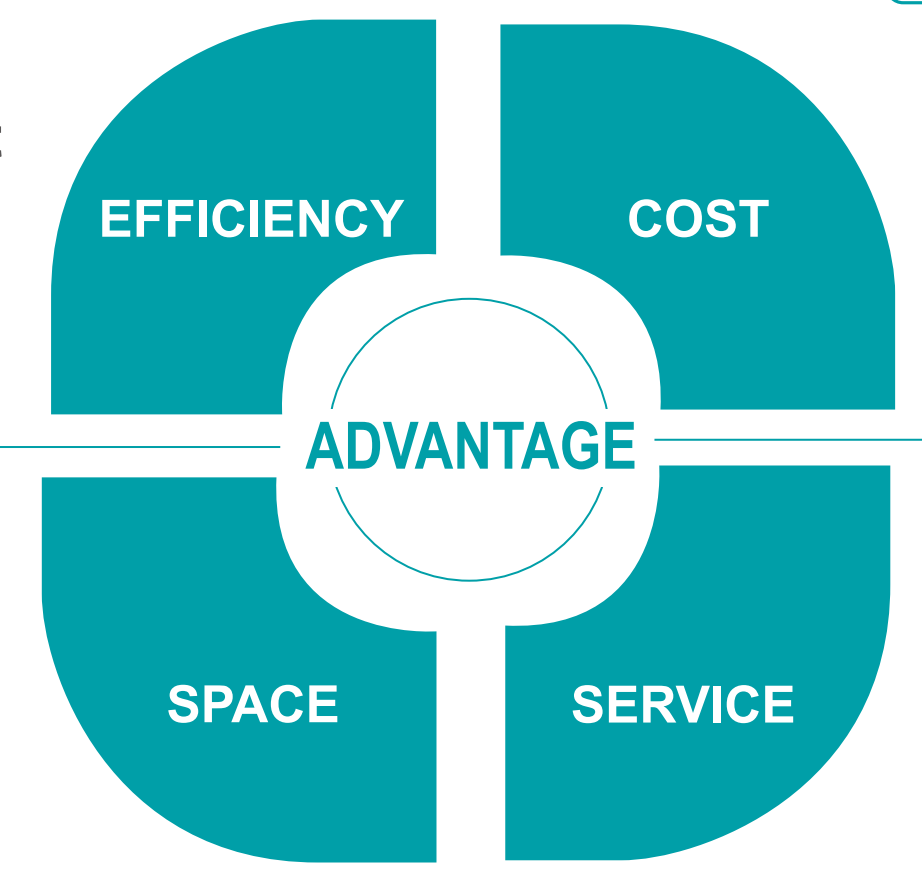
## Automated simulation software Motion Perfect

Motion Perfect software expert level control technology  
 auxiliary software offline motion simulation  
 Euclid visual guidance  
**no need to parse data, greatly shorten project startup and development time**  
 Devices and robots interact directly with internal data to achieve quick response and collaboration

No need to have individual control cabinet for multiple robots  
 Equipment integrated with electrical cabinet, distributed wiring method  
 Up to your choice!



- ▶ Standard robotic electrical cabinet is eliminated to make the entire equipment cabinet smaller and more compact
- ▶ Support distributed wiring, more flexible cabinet designs
- ▶ Support EtherCAT bus I / O, more convenient for expansion



**Single TRIO controller**  
 implements integrate control of multiple SCARA/DELTA robots  
 motion control servo axis, vision and logic control  
 perfectly replace PLCs and robot controllers

**Motion control, servo system, robot, vision one-stop service**  
 Project implementation, transformation and upgrading are convenient and easy  
 Communication is efficient

