

**NEXIOT**



High Performance EtherCAT  
multi-axes SoftMotion Controller  
for Digitalized Production and  
Asset Management

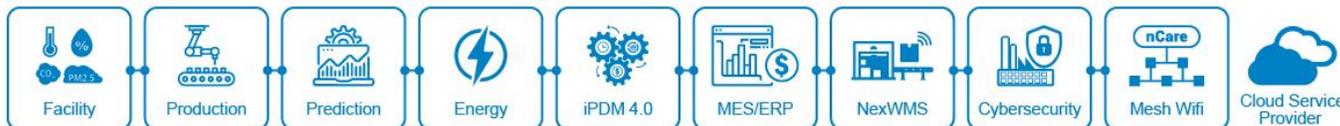
# Multi-Axes SoftMotion Controller for F&B Packing Machines

| User Scenario



## Enterprise War Room

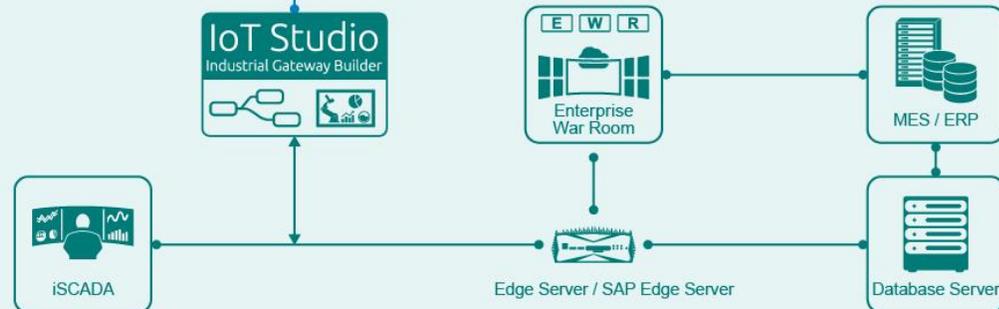
### Cloud Service



### Cloud Service

- ⊙ I4.0 War Room
- ⊙ Cloud SCADA
- ⊙ Big Data Analysis and AI

### Edge Computing



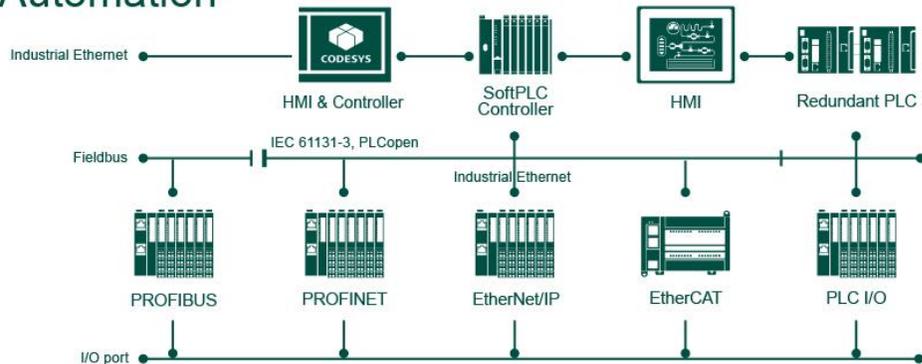
### Edge Service

- ⊙ Enterprise Information integration
- ⊙ Operation monitoring and management
- ⊙ Central database management

### Integrated System

- ⊙ Sensor Gateway
- ⊙ PLC Gateway
- ⊙ CNC Gateway
- ⊙ Robot Gateway
- ⊙ Fab4.0 Server

### Automation



- ⊙ PROFINET
- ⊙ PROFIBUS
- ⊙ EtherNet/IP
- ⊙ Siemens S7
- ⊙ Mitsubishi MC Code
- ⊙ Modbus

- ⊙ HEINDENAIN: iTNC530
- ⊙ Siemens: 828D/840D
- ⊙ Mitsubishi: M70/M700/M80/M800
- ⊙ Fanuc: 0i-B/0i-C/0i-D/16i/18i/21i/31i/32i

- ⊙ KUKA
- ⊙ ABB
- ⊙ Fanuc
- ⊙ Yaskawa

- ⊙ Semicon Equipment
- ⊙ Panel Equipment
- ⊙ PCB Equipment

### Automation System

- ⊙ PC-based Controller
- ⊙ Redundant PLC
- ⊙ Distributed I/O
- ⊙ SCADA and HMI

## Enterprise War Room

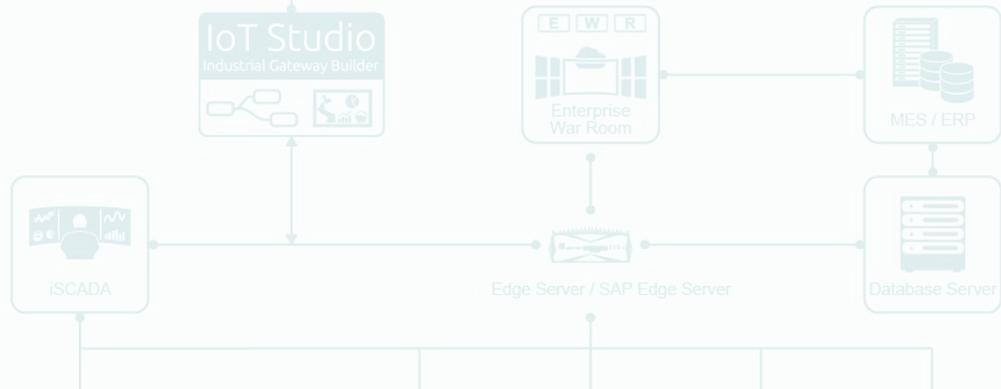
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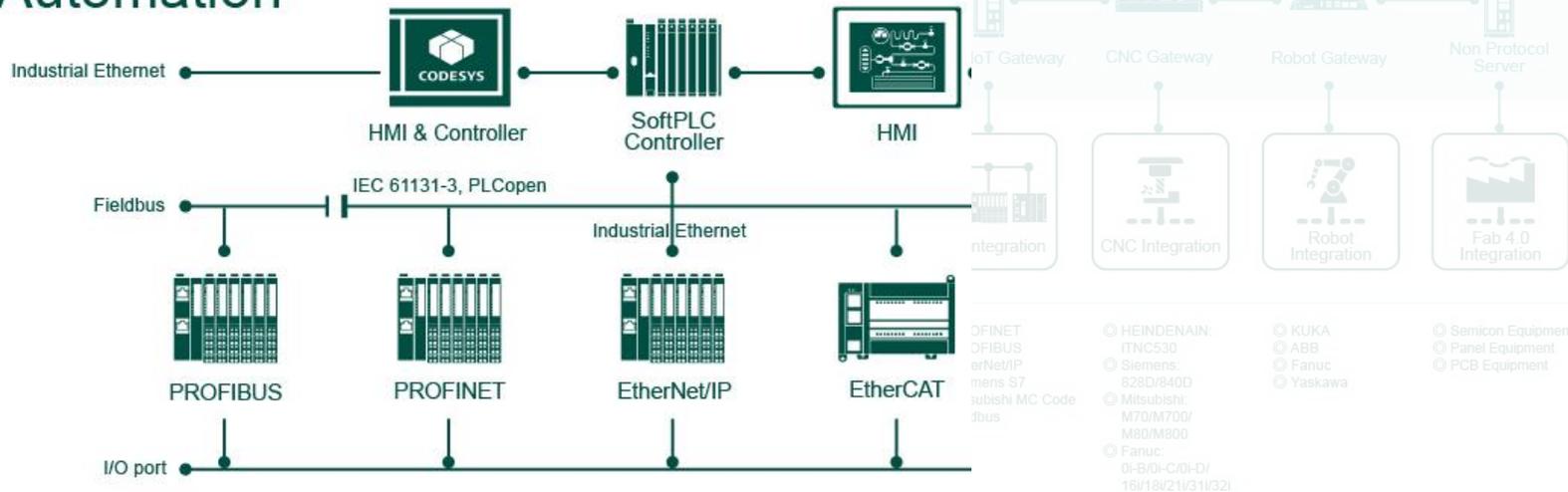
### Edge Computing



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### Automation



### Integrated System

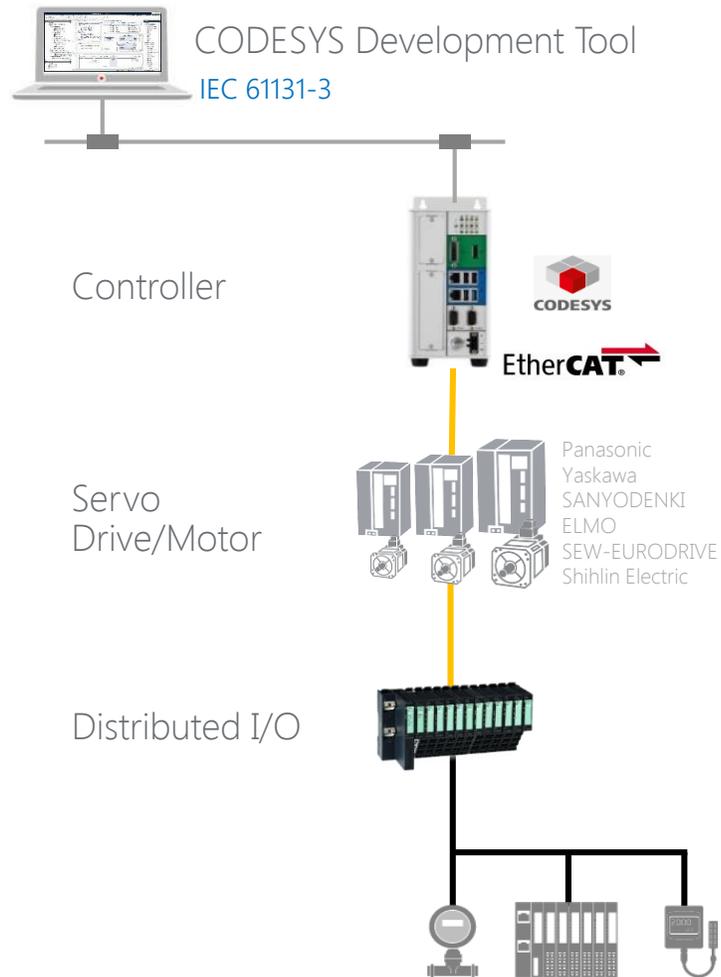
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### Automation System

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- ⊙ SCADA and HMI

# SoftMotion Controller Offering

| CODESYS Control  
SoftMotion RTE



## Comprehensive SoftMotion Functions

- Max amount of axes : 255
- DC Enable
- Follow PLCopen : Part 1,2,4
  - Diagnostics (MC\_ReadAxisError)
  - Read and write parameters (MC\_Read/WriteParameter)
  - Position, velocity, and acceleration profiles (MC\_\*Profile)
- Operation of cams and cam switches (MC\_CamIn, MC\_CamOut)
- Electronic gear with synchronization position (MC\_GearIn, MC\_GearOut)
- Probe (MC\_TouchProbe)

## High Performance

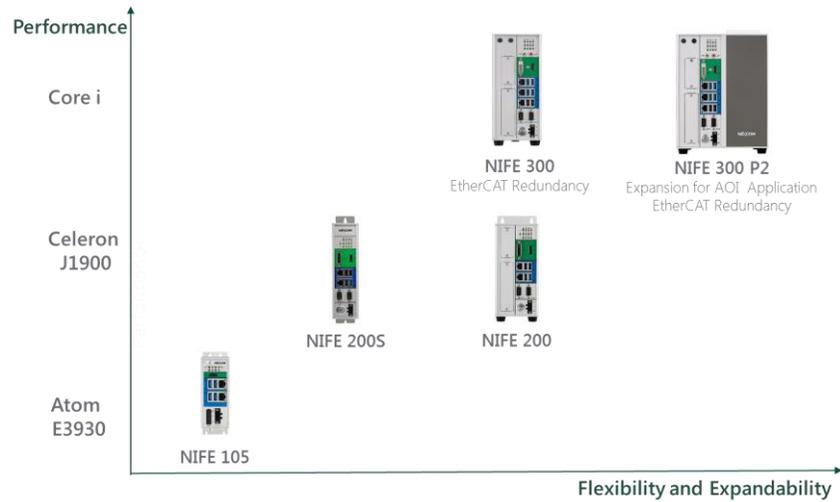
- Fast cycle time : 50 $\mu$ s
- Max. number of tasks : 100 (Cycle or Event)
- PROFINET, EtherNet/IP, EtherCAT and Modbus TCP
- OPC UA Server

## High Stability

- One non-Windows CPU core running CODESYS Runtime
- Support unlimited tags / points
- One development tool to deploy, monitor and debug

# SoftMotion Controller Offering

| CODESYS Control  
SoftMotion RTE

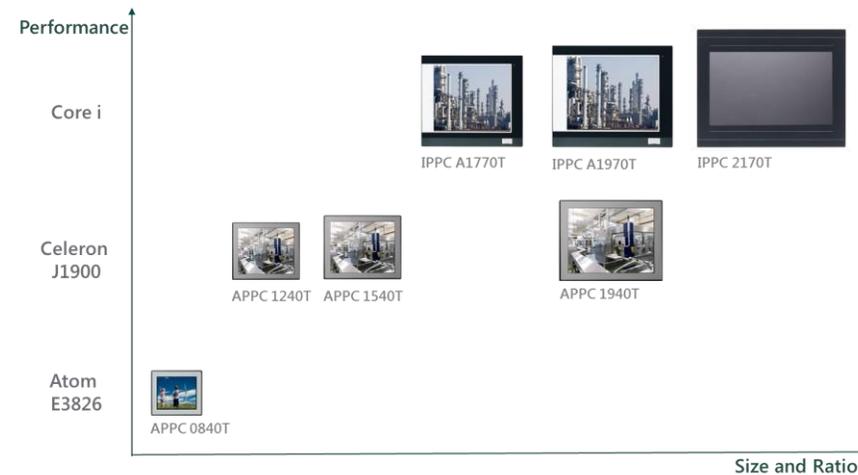


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High Stability

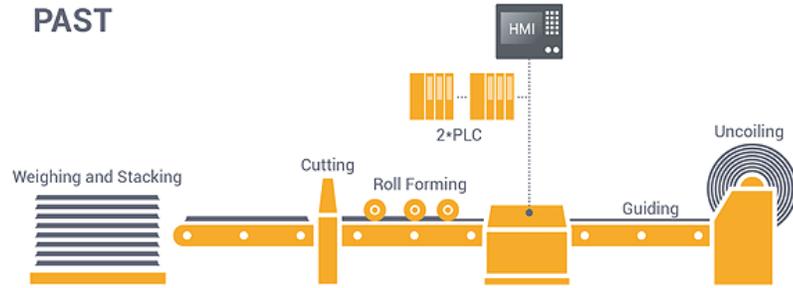
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# Metal Sheet Manufactory

| Successful Story

## Challenge

Build new roll forming lines for delivering a higher volume of corrugated metal sheets in a shorter time span than previously anticipated.

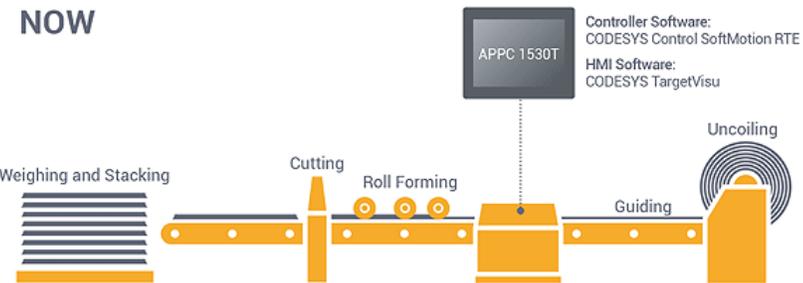


## Solution

NexAIoT APPC1540T-P20, 15" panel PC by

**EtherCAT** &

**CODESYS Control SoftMotion RTE**



## Result

- Product speed of **70** m/min
- Increase **40%** production speed
- Simpler system architecture

**70** PER MINUTE  
METERS

**40%**  
PRODUCTION SPEED

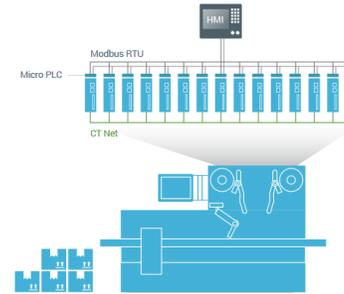
**2** → **1**  
PC-BASED  
CONTROLLER & HMI

# Packing Machines Manufactory

| Successful Story

## Challenge

The client's control units were unstable and unexpected interruption occurred. They needed an advanced solution to ensure stability for a continuous operation.

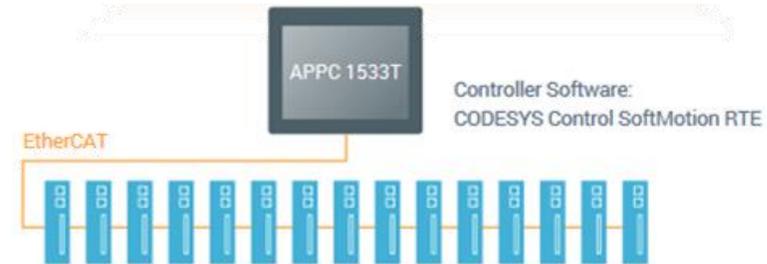


## Solution

NexAIoT APPC1533T-P20, 15" panel PC by

**EtherCAT** &

**CODESYS Control SoftMotion RTE**



## Result

- Accomplishes **500** packages/min
- Remove **15** micro PLC modules
- Reduce **60%** less wiring



**NEXAIOT**

*Your Partner in Smart Manufacturing*



RFP Now: [sales@nexaiot.com](mailto:sales@nexaiot.com)

Q&A

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NexAIoT in Action @