

## Application Scenario

How Equipment Connectivity Works in the Factory

### Pain Points of Global Manufacturers

#### Less Usability from Past Projects

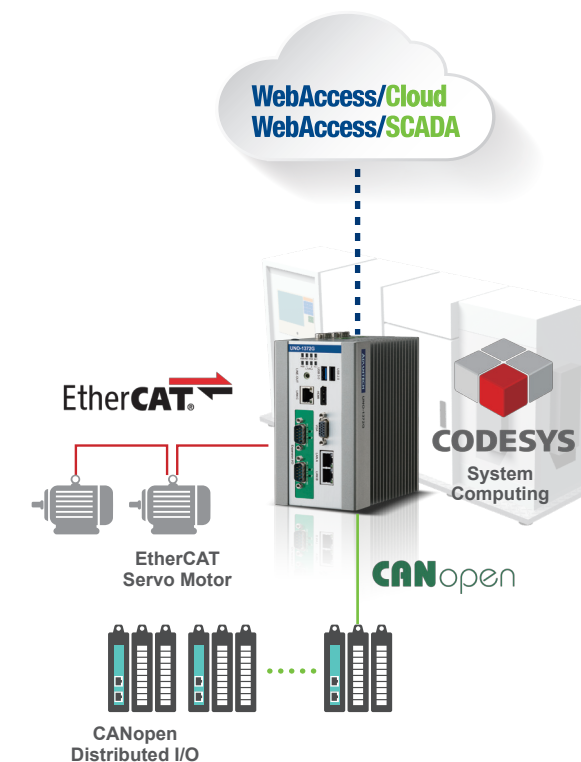
Complex automation projects always require long development times and efficiency is highly related to profit. At the same time, end users have to maintain several individual PLC or HMI development tools for applications instead of a single integrated interface. And because traditional development tools do not allow similar application parts to be inherited as modules from former projects, costs can quickly spiral.

#### Legacy Devices and New Expansion

It is difficult for manufacturers to replace legacy fieldbus devices which perform solidly but are limited by Ethernet-based upgrades, which need time to integrate properly. However, during transition they also suffer from compliance between legacy devices and new add-ons since the system contains a mix of fieldbus protocols.

#### Infeasible for Analysis

Advanced data analysis is always done by IT systems with powerful computing capabilities. Nevertheless, open communications such as Modbus/ OPC are required for bridging devices at the OT level and system analysis at the IT level.



### See what will happen...

- Shorten Project Development Time:**  
Meet schedules by leveraging functional modules from past projects
- Full Integration of Legacy and Successor:**  
Efficiency improvements with cost-effective CANopen Fieldbus and the latest Ethernet Fieldbus.

## Ordering Configuration Table

### SRP-FEC210 Programmable Real-time Machine Control

#### Package Offering

<b>Application Software :</b> CODESYS V3.5 SoftMotion & Visualization (Target & Web) x1 <i>Preinstalled CODESYS V3.5 SoftMotion &amp; Visualization (Target &amp; Web) Runtime</i>	<b>System Computing :</b> UNO-1372G-E3AE x1 <i>Intel® Atom™ DIN-rail Automation Computer, 128G SSD, MRAM, CANopen</i>	<b>OS :</b> Microsoft® Windows Embedded 7 Pro x1 <i>Preinstalled Microsoft® Windows Embedded 7 Pro</i>
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#### Optional Configuration

Option 100 WISE-PaaS/SaaS Software	Option 300 I/O & Peripherals
[101] WebAccess/SCADA Dongle Key V8.2 Pro. 1500 tags (WA-P82-U15HE) <input type="checkbox"/> Qty: ____	[301] EtherCAT Distributed Digital I/O (AMAX-4830-AE) <input type="checkbox"/> Qty: ____
[102] WebAccess/SCADA Dongle Key V8.2 Pro. 5000 tags (WA-P82-U50HE) <input type="checkbox"/> Qty: ____	[302] EtherCAT Distributed Digital Output (AMAX-4834-AE) <input type="checkbox"/> Qty: ____
Option 200 System Computing	Option 400 Add-on Accessories
[201] 12.1" XGA Ind. Monitor w/ Resistive TS (FPM-7121T-R3AE) <input type="checkbox"/> Qty: ____	[401] Power Adaptor (PWR-247-CE) <input type="checkbox"/> Qty: ____
<b>Remark</b>	

## Order in 3 Easy Steps

**Go Online Store**



**1.**

Step 1: Login

**Add to Cart**



**2.**

Step 2: Configuration

**Confirm Order**



**3.**

Step 3: Check & Submit

### Advantech Headquarters

No. 1, Alley 20, Lane 26, Rueilguang Road, Neihu District, Taipei, Taiwan 11491  
Tel: 886-2-2792-7818 Fax: 886-2-2794-7301  
www.advantech.com

US/Canada: 1-888-576-9668  
Europe: 00800-2426-8080/8081  
China: 800-810-0345/8389  
Taiwan: 800-777-1111  
Japan: 0800-500-1055  
Korea: 080-363-9494/9495

Singapore: +65-6442-1000  
Malaysia: 1800-88-1809  
Australia: 1300-308-531  
Thailand: 66-2-248-3140  
Indonesia: +62-21-7511939  
Mexico: 1-800-467-2415

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Enabling an Intelligent Planet



SRP-FEC210  
Online Catalog

iFactory

Solution  
Ready  
Platform

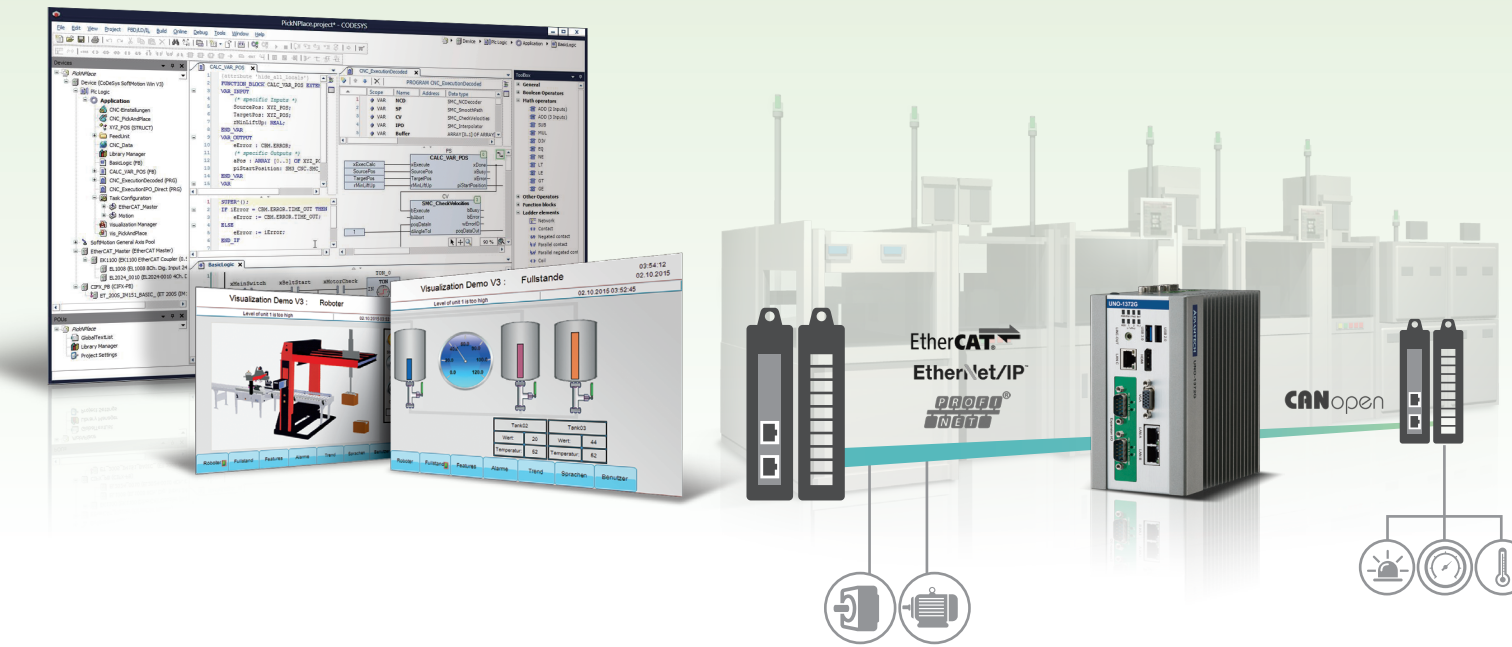
# Equipment Connectivity Solution

Easy Programming for Real-time Machine Control

SRP-FEC210



CODESYS



- ✓ Shorten Development Time
- ✓ Real-time Data Acquisition & Visualization
- ✓ Real-time Soft Motion Control

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**WISE-PaaS**  
IoT Software Platform



More on SRP-FEC210 website



# Entering a New Era of Smart Manufacturing

## Introducing SRP-FEC210 Solution for Programmable Real-time Machine Control

This Solution Ready Platform allows users to reduce development time by supporting object-oriented programming (OOP) that is fully compliant with IEC 61131-3 standard and Program Organization Units (POU) inheritance from similar applications. The HMI is applied to the same IEC 61131-3 development environment. SRP-FEC210 guarantees real-time dual fieldbus data acquisition of PROFINET, EtherCAT, EtherNet/IP and CANopen communications. Users can collect data from Ethernet fieldbus and CANopen simultaneously. Moreover, it achieves real-time EtherCAT soft motion control for single or multi-axis movements of electronic CAMs/ gears on CiA DSP 402 controllers and virtual axes by certified PLCopen motion POU's.

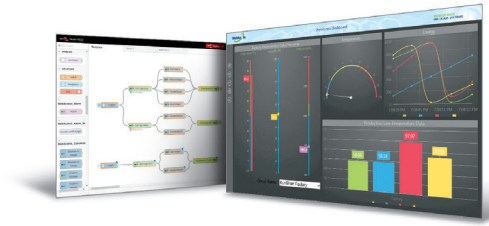
## System Block Diagram

### WebAccess/APP

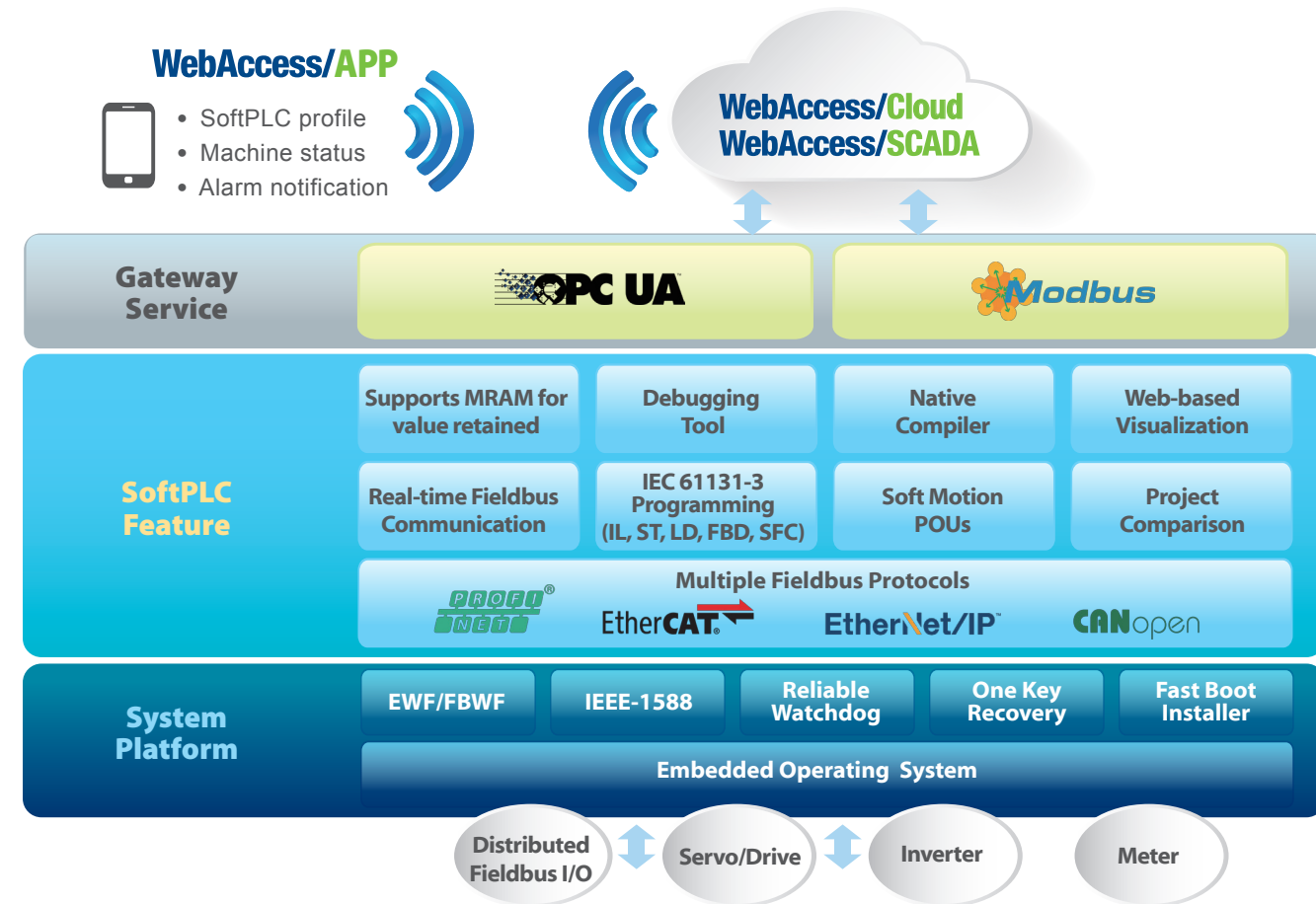
- SoftPLC profile
- Machine status
- Alarm notification

### WebAccess/Cloud WebAccess/SCADA

- Open interface for cloud dashboard monitoring & big data analysis
- Precaution alarm for equipment preventive maintenance
- Monitor all fieldbus-connected motion device states

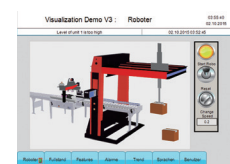


## Software Architecture and Key Design Features



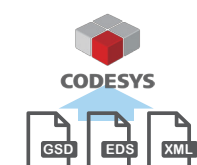
## SoftPLC Design Feature

- ### IEC 61131-3 Programming
1. IL (Instruction List)
  2. ST (Structured Text)
  3. LD (Ladder Programming)
  4. FBD (Function Chart Programming)
  5. SFC (Sequential Function Chart)



- ### Visualization
1. Controller/ Input Options
  2. Table/ Chart
  3. Graphical /Animation Options
  4. Support WebVisualization for remote control

- ### CODESYS Soft Motion Module
1. Single-Axis Function Block
    - MOVE ABSOLUTE • MOVE RELATIVE
    - HOME • STOP • POWER
  2. Multi-Axis Function Block
    - CAMIN • CAMOUT • GEARIN
    - GEAROUT

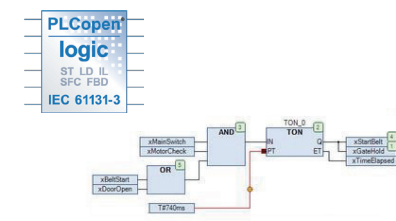


- ### Compliant to 3rd party Fieldbus Device
- Supports GSD/ EDS/ XML file import

## Key Advantages/ Features

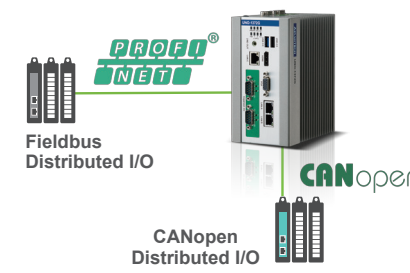
### Shorten Development Times IEC 61131-3 Compliant

Supports real object-oriented programming fully compliant with the IEC 61131-3 standard to inherit existing POU's to reduce development time and errors.



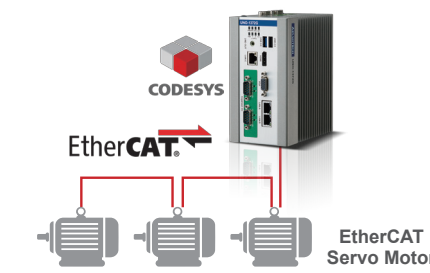
### Real-time Dual Fieldbus Data Acquisition

Supports real-time fieldbus protocols. Users can collect data from more than one Ethernet fieldbus and CANopen port simultaneously.



### Real-time EtherCAT Soft Motion Control

Supports CODESYS certified PLCopen motion POU's for single or multi-axis movements of electronic CAMs/ gears on CiA DSP 402 controllers and virtual axes etc.



## Solution-Ready-Platform Package

**CODESYS Runtime Software**  
Preinstalled CODESYS SoftMotion & Visualization (Target & Web) Runtime



**UNO-1372G-E3AE**  
Intel® Atom™ Quad-Core  
DIN-Rail PC, 4GB RAM, 128G SSD, MRAM, CANopen, Micro-soft® Windows Embedded 7 Pro.



**CODESYS Fieldbus Library**  
Integrated Fieldbus Support in the IEC 61131-3 Tool, from CANopen to real-time Ethernet, including the Protocol Stacks.





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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