

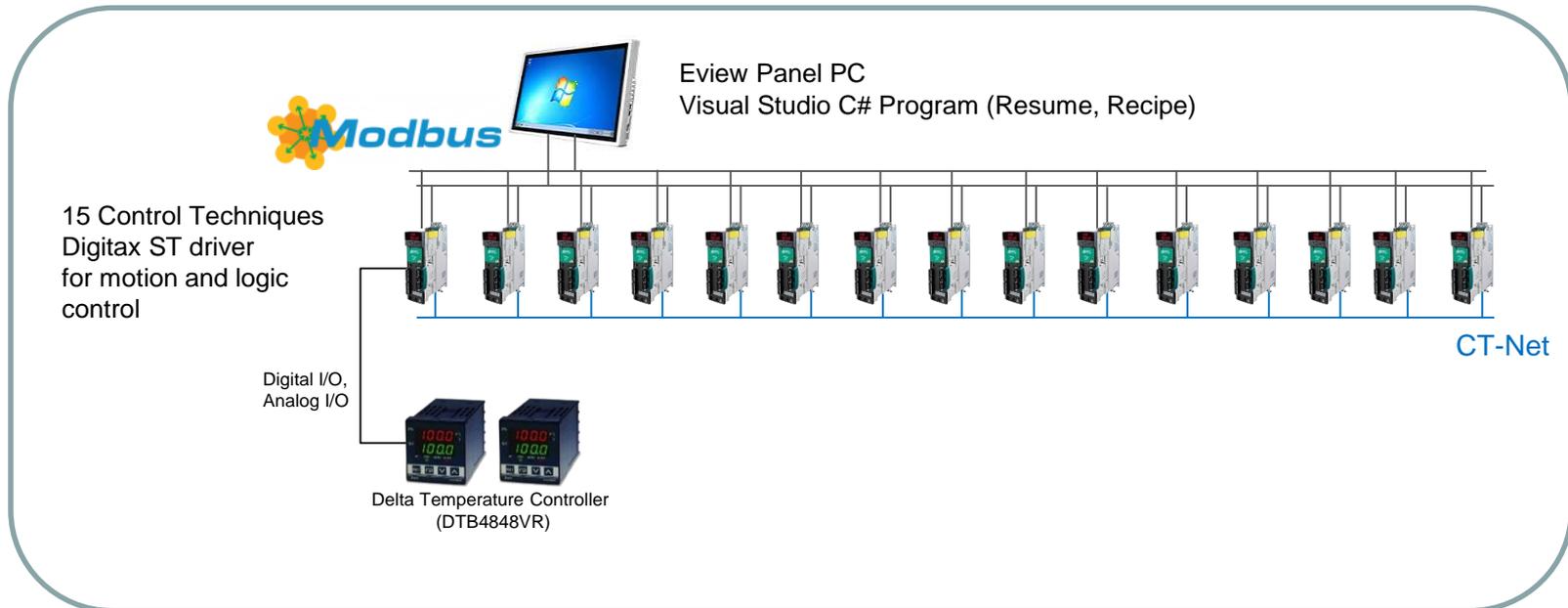
Application in Flow Packing Machine with Inline Feeding

◆ Project Background

- A Turkish company to manufacture full-automatic wafer production line machines, packing machines, and product feeding systems competing with other European companies.

◆ Challenges

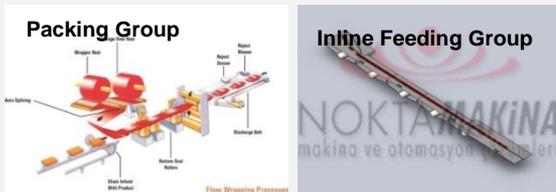
- 15 axes of servo drive with hardware & communication problems that cause the down time and limit the productivity.
- The development and installation took time and operating costs were high



Application in Flow Packing Machine with Inline Feeding

◆ High Speed Inline Packaging Machine

- Integrated 15 independent programs of servo drives and motors into one master controller
- APPC1533T onboard 1Gb LAN port with real-time EtherCAT communications to achieve the line speed goal and machinery stability
- The speed reaches up to 500 ppm (about 80 meter/minute film speed)



- Unified the communication from Modbus RTU and CT Net to EtherCAT
 - Reduced the communication problems among 15x servo drives/motors and C#-based HMI program.
 - Enhanced with EtherCAT communication stability and cut down the installation and operating cost.
 - Sufficiently integrate C#-based HMI with resume and recipe functions into PC-based control system as SoftPLC and yet follows the PLCopen standards.
- Achieve the line speed goal at 500 ppm/min
 - NEXCOM APPC 1533T with CODESYS and real-time EtherCAT to achieve the production rate and increase the total productivity.
- IP65 Compliant 15" fanless LED panel PC
 - High quality 15-inch XGA fanless touch screen panel PC to display the real-time control functions.
 - The IP65 compliant design is suitable to operate in high operating temperature and harsh packing environments.

