



WÄGETECHNIK

# Silologistic

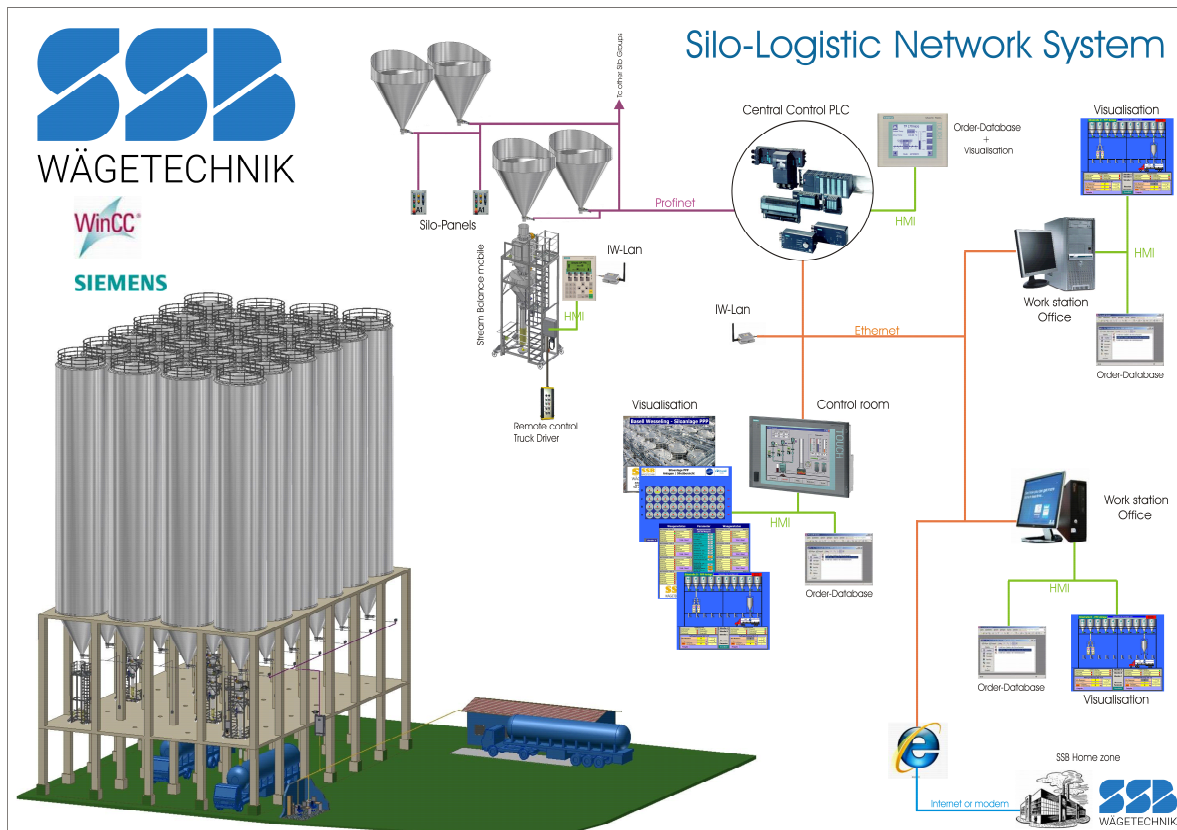


Silologistic Controls  
for Plastic Granulates  
Silofarms and Hubs

# System structure

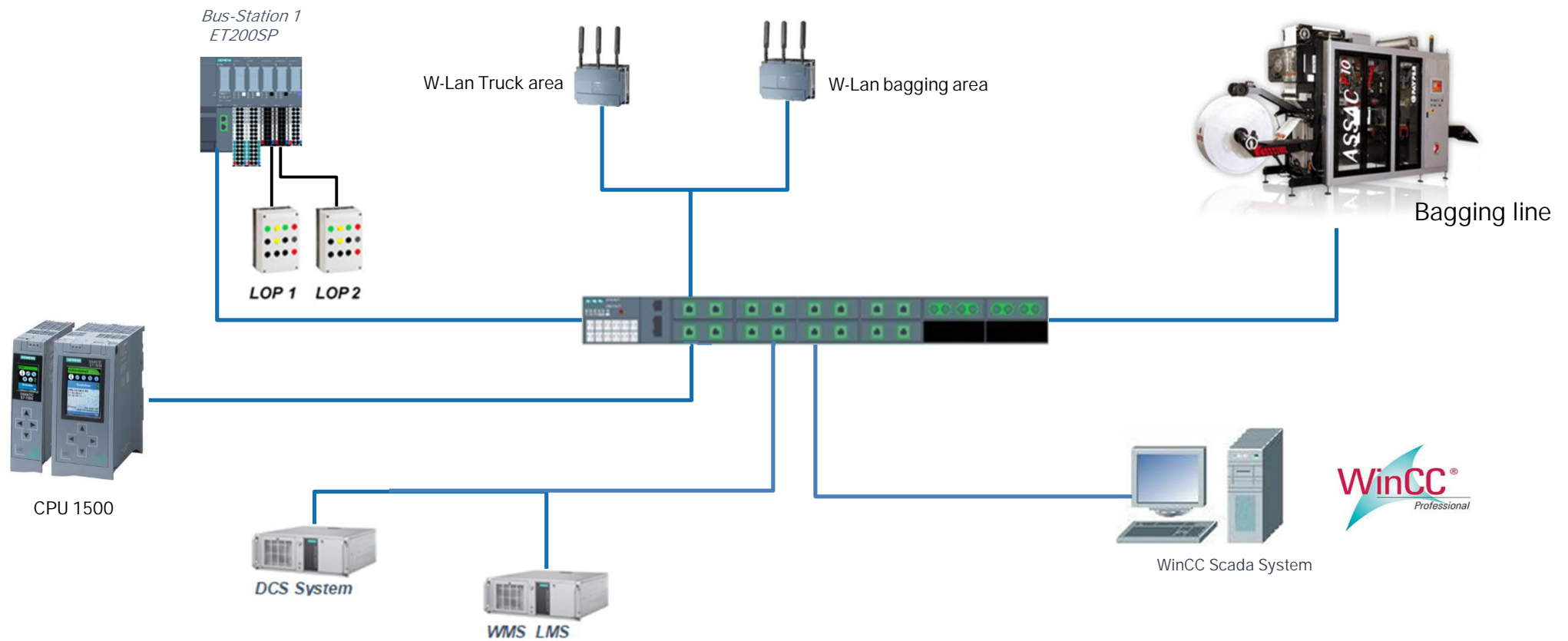


# System structure



- Silo control
- Truck operation handling
- Truck loading
- Bagging
- Order management
- Interfacing to DCS
- Interfacing to WMS

# System network





# Silo control central PLC



Simatic S7/ 1500 TIA Portal

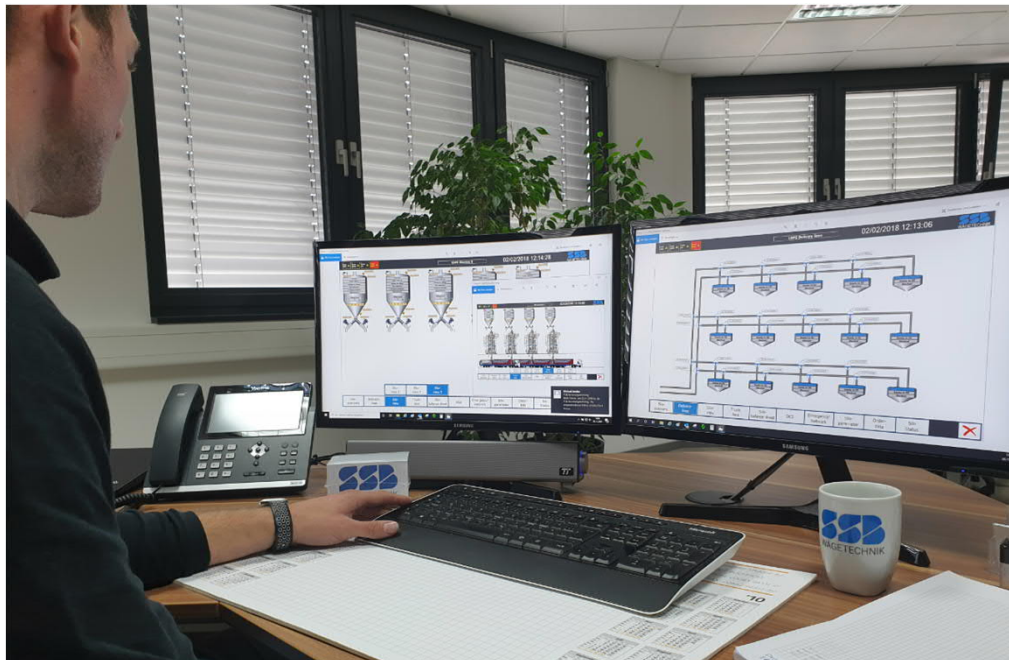


- Ethernet Interface DCS / WMS / LMS
- Siemens Industrial PC / Server
- Industrial Panels for Control rooms
- Fibre optic structures
- Redundant execution possible
- Redundant network structure



# PLC - Programming

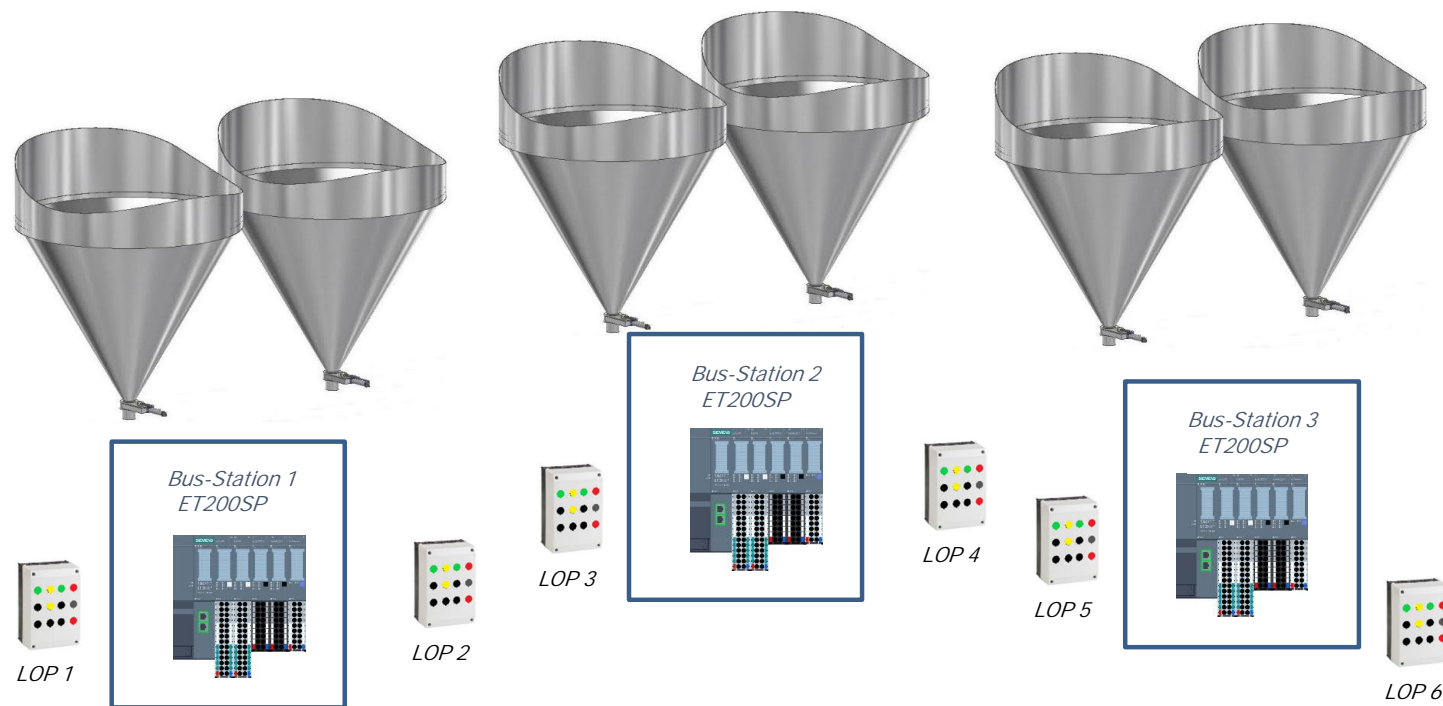
## Simatic S7/ TIA Portal



- Programming in Siemens Step 7
- Tia portal to integrate all sub units to global control network
- Programming with network and symbolic comments for easy maintenance
- Remote control
- Free interfacing to other control systems



# Silo outlet control



- Safety control by central PLC
- Release logic operation
- Siemens ET200SP Bus Station
- Siemens Profinet structure
- Emergency stop safety network
- Fibre optical wiring redundant



# Silo operation panels



Classic Operator panels  
Silo associated



Touch Operator panels  
Silo-row associated  
Visualization



Touch Operator panel  
Operation integrated in bagging  
or Truck loading unit



# WinCC Scada System



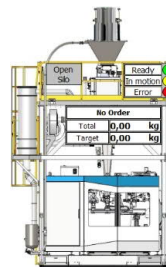
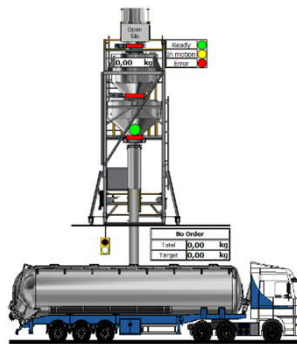
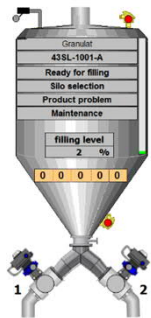
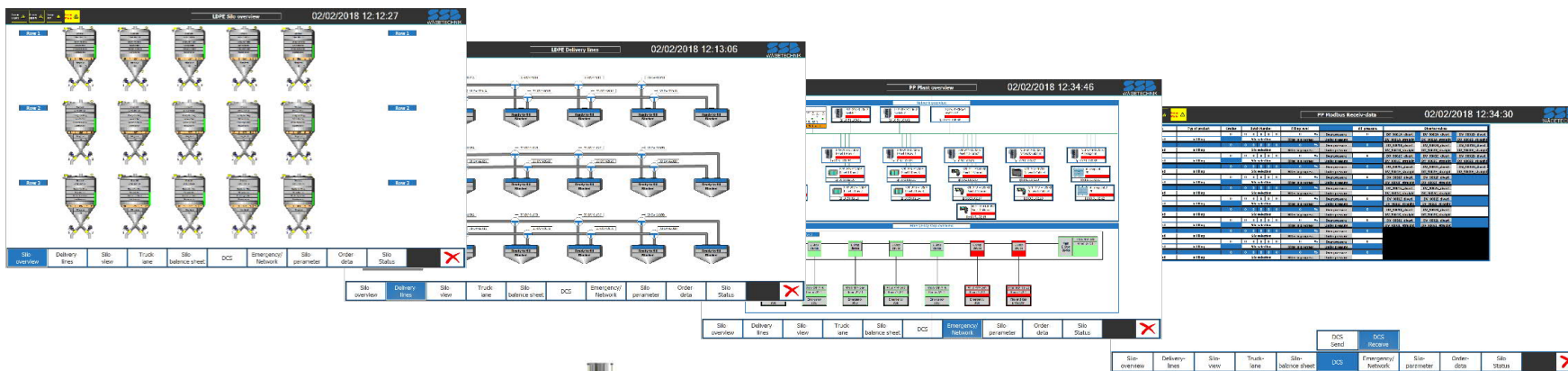
WinCC Visualisation System for single Work Station or redundant Scada Systems for Multi user application



Visualisation of:

- Silo Status and Product information
- Field information of In-Outputs
- Order Status
- Truck Loading Status
- Bagging status information
- Production information / Statistic
- Operation logging
- Error diagnostic

# WinCC Scada System



Visualisation of logistic process

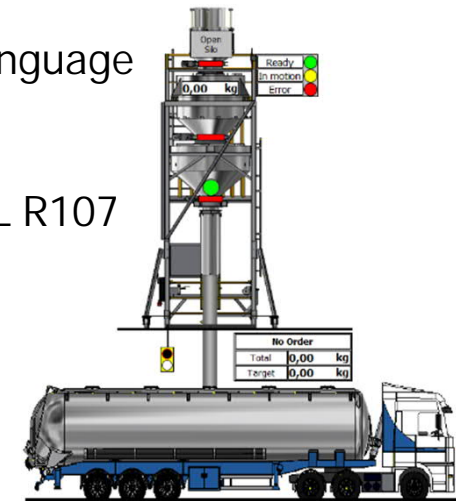
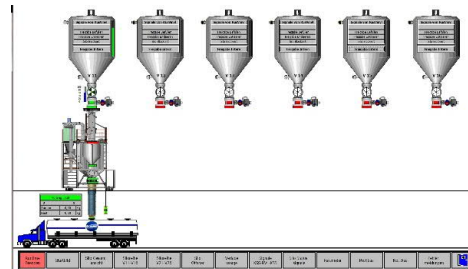
Multi Window Technology and individual concepts for Applikation

# Truck Loading Process



Management of truck or Container loading  
In a logistic process

- Integrated in Order management system
- Automatic order transfer
- Truck driver self loading with multi language operator panels
- High accuracy loading
- Certificated weighers according OIML R107





# Bulk loading weigher



Silo docking systems



Telescopic loading arm



# Bulk Loading weigher



VW 500 weigher



Loading telescope  
without weighing system

## Options:



Metal separator with  
collection container



W-Lan connection



Multimover



Automatic washing  
equipment



Connection to upper  
control systems like  
DCS



Identification systems  
for silo-connections  
and truck drivers



PC visualization



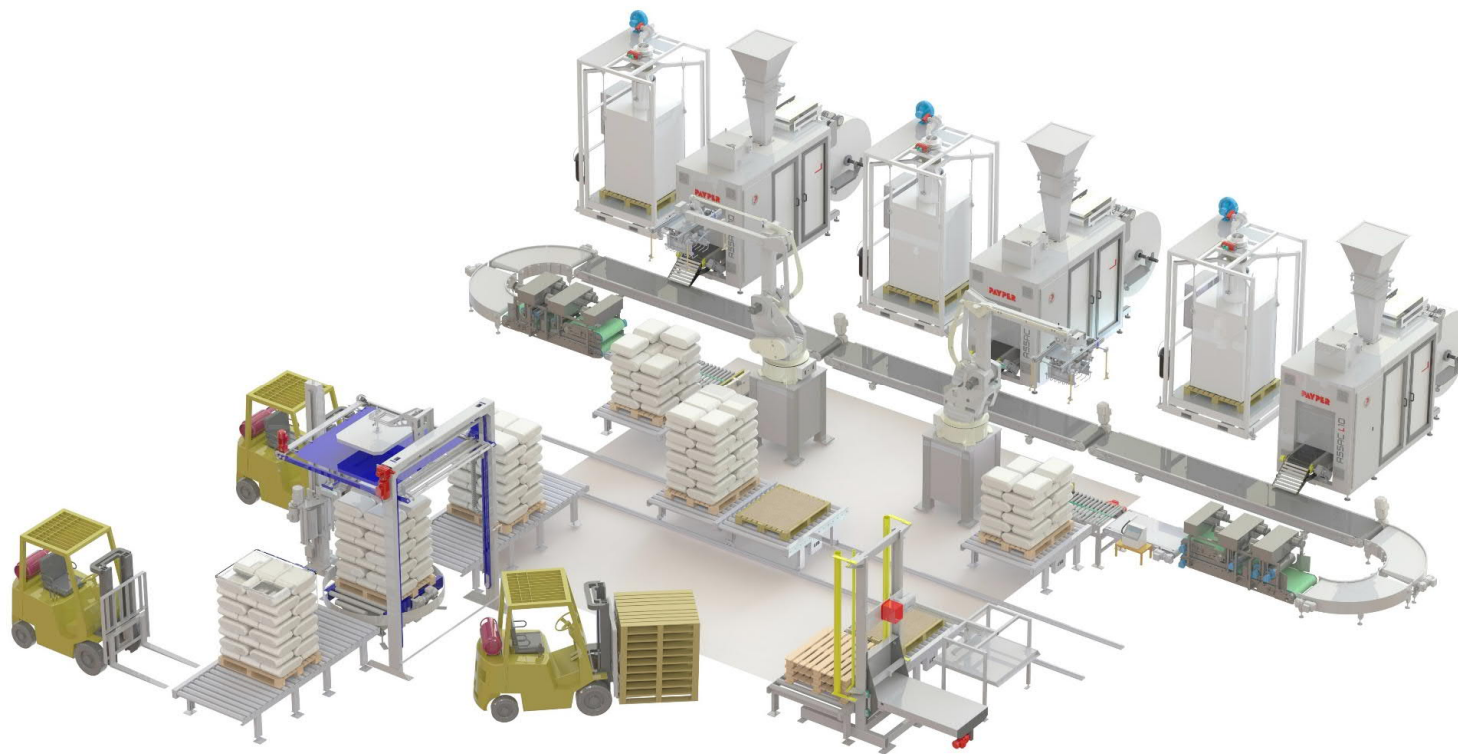
# Bagging Process



Management of bagging process  
in logistic silofarms

- Integrated in Order management system
- Order transfer to bagging machines
- Order transfer to palletizer machines
- Order transfer to bag labeling systems
- Order transfer to pallet labeling systems
- Status of all machineries in bagging line

# Bagging – Palletizing - Packing



Full bagging line with:

- 3 bagging machines
- Conveyor belts
- Bag equalisation and printing
- Empty pallet magazin
- Robot palletizer
- Pallet handling
- Stretch hood packing
- Pick up for forklift



# Bagging- Palletizing- Packing



Bagging



Bag labeling



Palletizing

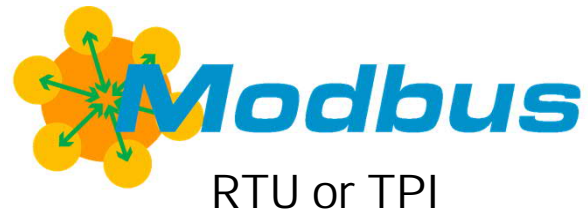


Packing



Pallet labeling

# Silo Control Interface to DCS

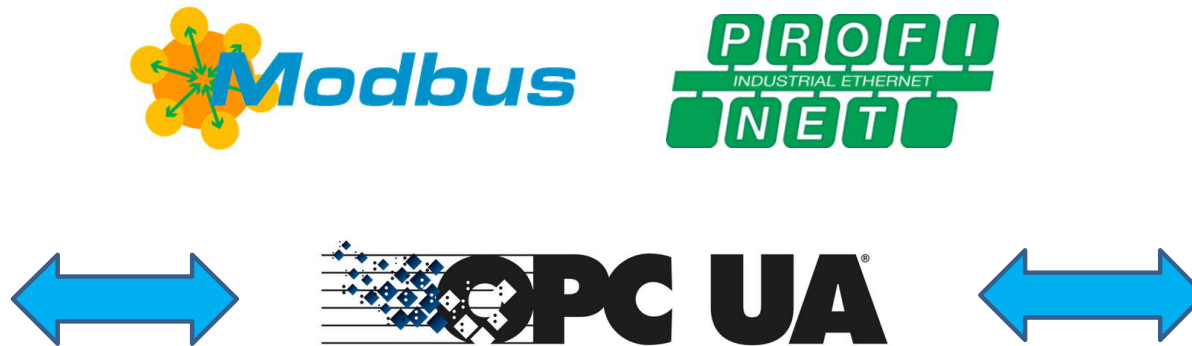


PLC Silo control

Network HUB

DCS Systems

# Silo Control Interface to LMS/WMS



PLC Silo control

Siemens OPC Server UA

LMS / WMS Systems

# Service / Contact



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