

INTEGRA

Who are we?

By Chaitas Rurkwongratana

“The Processing Engineering and Solutions Company”

- **INTEGRA** was founded in 2004 in order to response to the manufacturers who need the modernized technology production line resulting high productivity and reliable good product output.
- We are the engineering company which is engaged in designing, engineering, supply, installation and start - up of liquid processing plant in variety sections such as dairy, drinks, food, pharmacy, cosmetics etc.
- We combine all engineering knowledge together: *Processing, Mechanical, Electrical, Process Control and Automation.*
- We do not have limit of supply, depend on customers' desires.
- Offer wide range of process control starting from simplify manual up to modern computerized technology.

Our products and services are adapted for clients in various industrial sections, such as.

- Dairy products
- Pharmaceutical
- Brewery and liquor
- Soft drink
- Fruit juice
- Sauce
- Cosmetic
- Food
- Others



We offer the full range of products in the following area:

- System Unit
- Process Solution
- Components

Integra does fabrication in workshop and deliver ready-to-use system to customers.

- CIP/SIP Unit
- Pasteurizer
- UHT
- Mixing / Dissolving
- Deaerator
- In-line Blender
- Reception Unit
- Aseptic Tank
- Cluster Valve



We individually design and install the processing plant according to customer's criteria and requirement.

- **Storage matrix** : mixproof cluster valves / flow plates / swing pipes + valves
- **Mixing station** : tank system / circulation system / continuous
- **CIP / SIP system** : a) centralized b) decentralized
c) combined centralized / decentralized
- **Sterile process**
- **Pasteurization / UHT**
- **Fermentation**
- **Complete systems for production** : milk / yoghurt / juice / soft drink /
alcoholic drink / medicine / cosmetic / sauce

To guarantee the plant will run smoothly without interruption time, our spare parts are available for service

- Pipe and fittings
- Valves
- Pumps
- Seals
- Instruments
- Controllers
- I/O
- Etc.

Integra offers customers the services and support.

- Project engineering
- Manufacturing & installation
- Test run & commissioning
- Acceptance Test
- Validation
- Documentation
- Training
- After sale service
- Retrofit & upgrading
- Technical consulting

Integra does work according to customers' or other designers' drawings and specifications or our own design to meet customers' requirement.

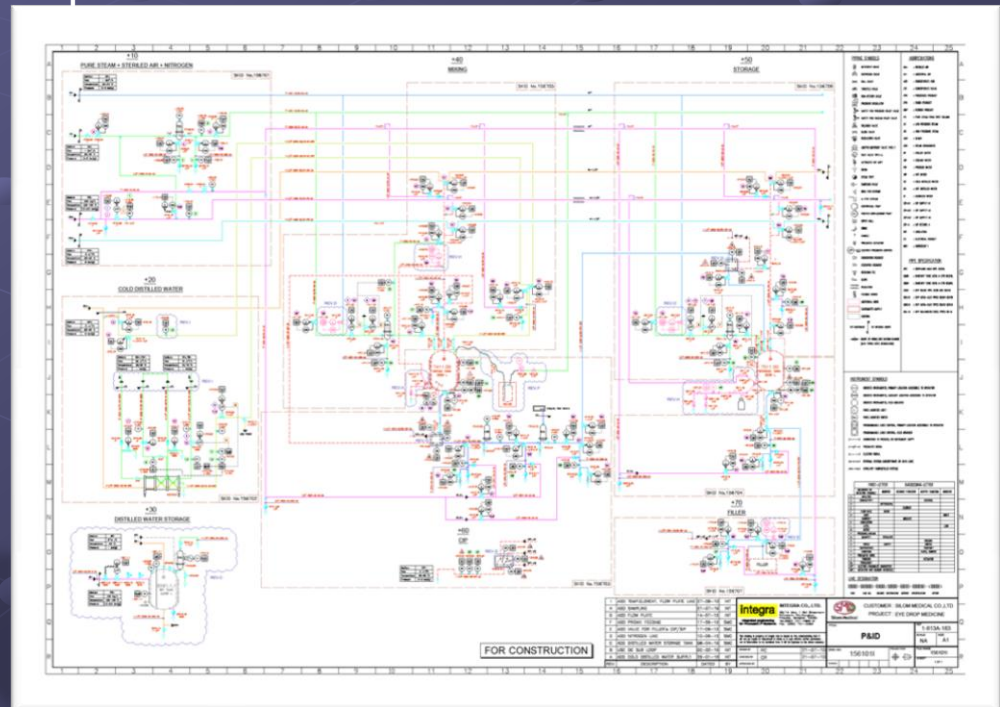
- Piping work
 - sanitary tubes for product lines (**orbital welding**)
 - utility pipes for water, air, steam, etc
- Electrical work
 - control cabinet
 - power cabling
 - control / network cabling
- Automation work
 - PLC programming
 - HMI / SCADA system

Integra will execute the engineering tasks as followings.

- Processing
- Mechanical
- Electrical
- Control and Automation
- Qualification

Integra will execute the process engineering tasks as followings:

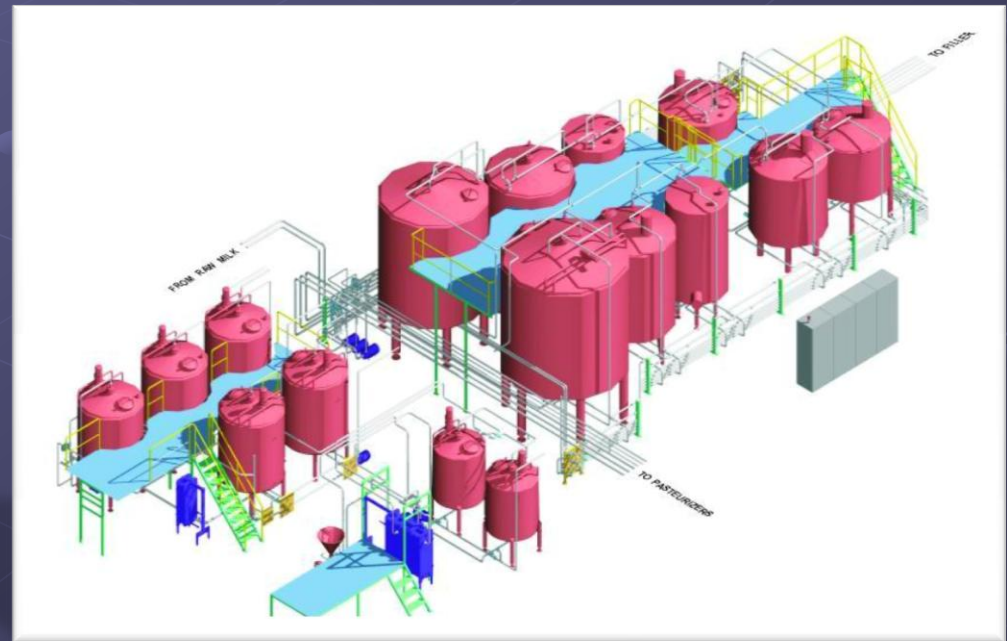
- Process block diagram
- Piping & instrument diagram (P&ID)
- Process and sequence description
- Utility requirements
- Functional requirements
- Operation manuals
- Design specification



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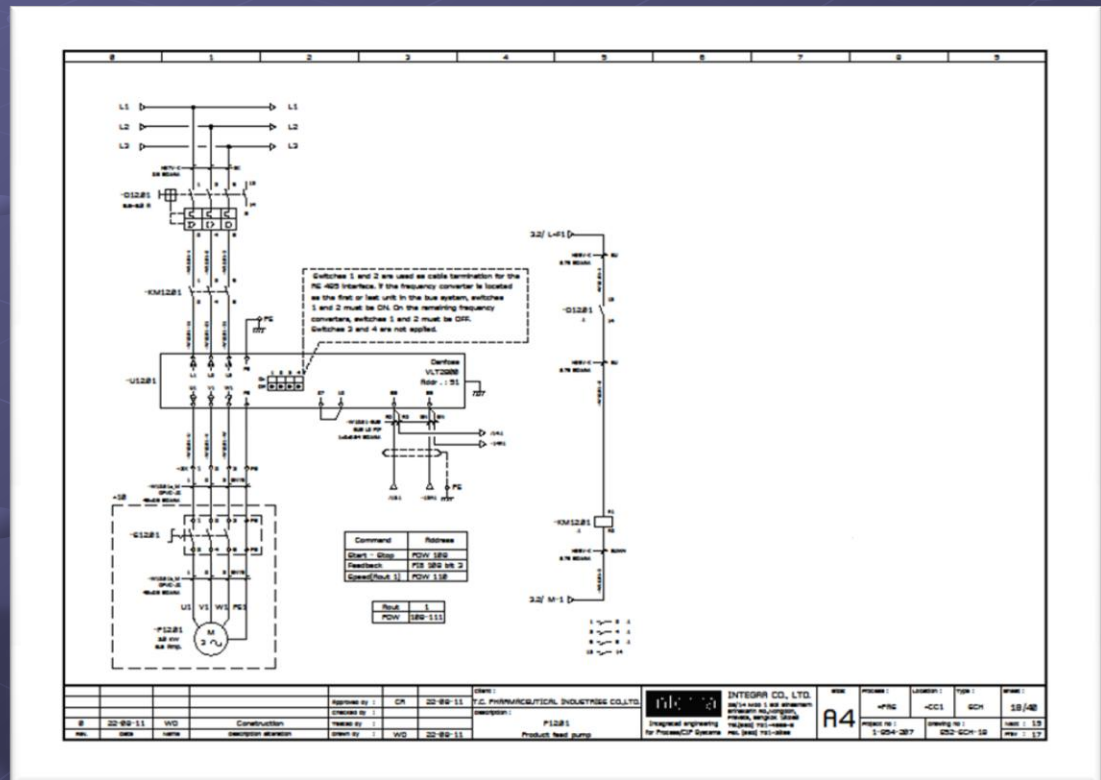
Integra will execute the mechanical engineering tasks as followings:

- Machines and equipment specifications
- Machine layouts and section views
- Piping drawings including GA, 3D and isometric
- Service and maintenance instruction
- Detailed drawings
- Technical document
- Equipment list
- Assembly drawings



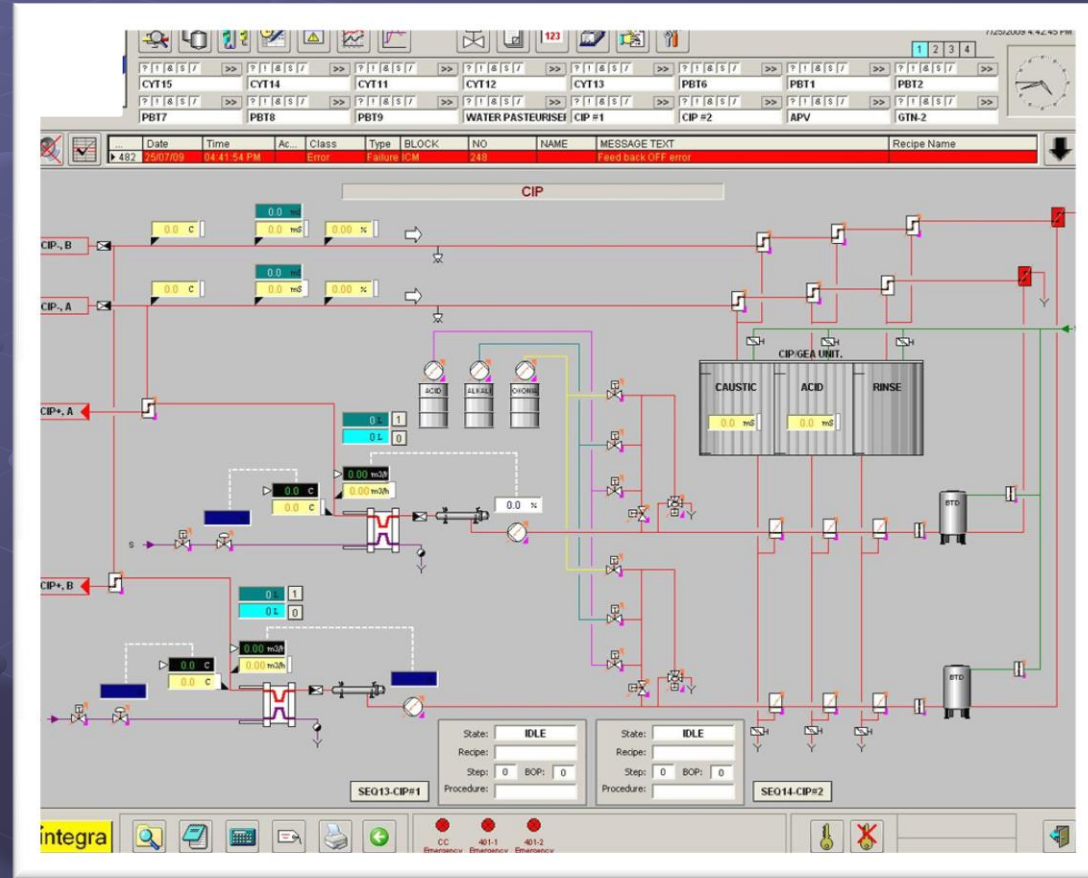
Integra will execute the electrical engineering tasks as followings:

- Electrical schematic diagrams
- Control panel layout
- Cable list
- I/O list
- Component list
- Terminal assignment
- Instruction manuals



Integra will execute the control and automation engineering tasks as followings:

- Function specification
- Alarm listing
- Hardware configuration
- Logic programming
- HMI
- SCADA
- Instrument list
- Database



Integra will execute the qualification tasks as followings:

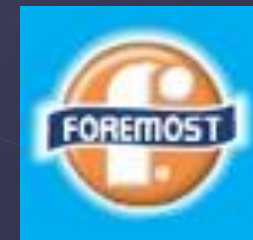
- Functional Specification (FS)
- Design Qualification (DQ)
- Factory Acceptance Test (FAT)
- Installation Qualification (IQ)
- Operational Qualification (OQ)
- Performance Qualification (PQ) (supported)
- Site Acceptance Test (SAT)

- Single source
- Up-to-date technology
- Engineering support
- Conform international standard
- Good manufacturing and assembly
- Develop
- Qualified support team
- Quality control
- Good service
- Open source
- Flexibility
- Negotiable price
- Customer's satisfactory guarantee

Successful high-tech products and services require the latest technology and constant high quality components and manufacturing. INTEGRA relies on the best partners in order to carry on giving you the best products services on the market.



Please have a look at some of our customers:





Project:

Industry:

Description:

Speciality:

Sterile Eye Drop Medicine

Pharmaceutical

Fully automated production incl. WFI distribution, mixing, filtration, CIP/SIP
Turn key project, design & engineering (process, piping, electrical and automation), supply, installation, test run & commissioning, validation, training, compliance documents



Project: Liquid Palatability Enhancers Plant
Industry: Pet foods
Description: Fully automated production incl. raw mat. intake, grinding, cooking, filtration, storage, filling, CIP
Speciality: design & engineering (detailed process, piping, electrical, automation HW), supply, installation, test run & commissioning, training



Project:

Concentrate Milk and whey

Industry:

Dairy

Description:

Intake station, 4 storage tanks, manual preparation/ automatic running

Speciality:

design & engineering (process, piping, electrical and automation HW), supply, installation, test run & commissioning,



Project:

Pasteurized Milk Processing Plant

Industry:

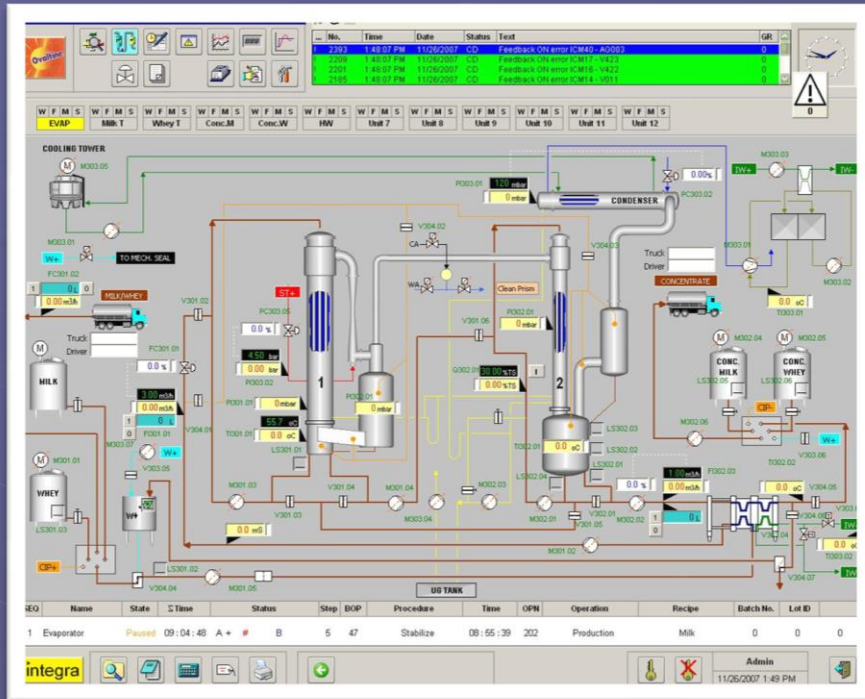
Dairy

Description:

Semi-automated production incl. Raw milk intake, flavored mixing, storage, drinking yoghurt production.

Speciality:

Turn key project, design & engineering (process, piping, electrical and automation), supply, installation, test run & commissioning, training,



Project: Milk/Whey Evaporation Plant
Industry: Dairy

Description: Rebuild fully-automated 2-effect evaporation plant, falling film c/w thermal-compressor. The plant is operated via PC located in the control room.

Speciality: Turn key project, design & engineering (process, piping, electrical and automation), supply, installation, test run & commissioning, training,



Project:

CIP Plant for Sesame Production

Industry:

Foods

Description:

Fully automated CIP plant comprise of modular CIP module "INTE-FLUSH"

Speciality:

Supply, test run & commissioning, training,



Project: Saline Processing Plant

Industry: Pharmaceutical

Description: Fully automated production incl. hot/cold WFI distribution, 7 mixing tanks, filtration, 4 filling lines, CIP/SIP, more than 350 automatic valves to be controlled

Speciality: Turn key project, design & engineering (process, piping, electrical and automation), supply, installation, test run & commissioning, validation, training, compliance documents

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Project:

UHT Pilot Plant

Industry:

Dairy

Description:

Dairy product pilot plant incl. mixing unit, Pasteurization/UHT pilot plant, aseptic homogenizer, aseptic filling station

Speciality:

Turn key project, design & engineering (process, piping, electrical and automation), supply, installation, test run & commissioning, validation, training,



Project:

UHT Pilot Plant

Industry:

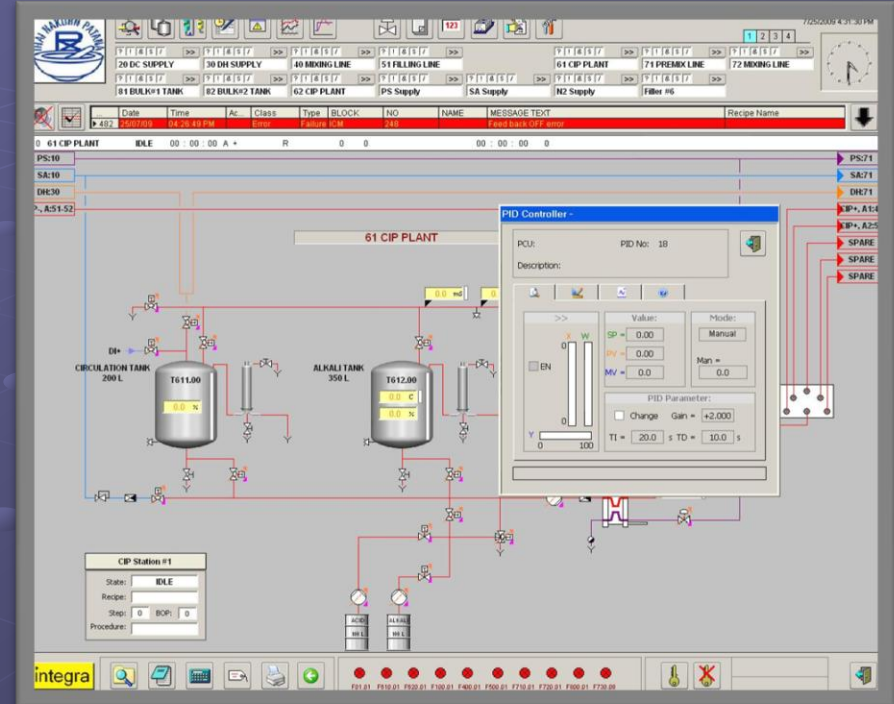
Dairy

Description:

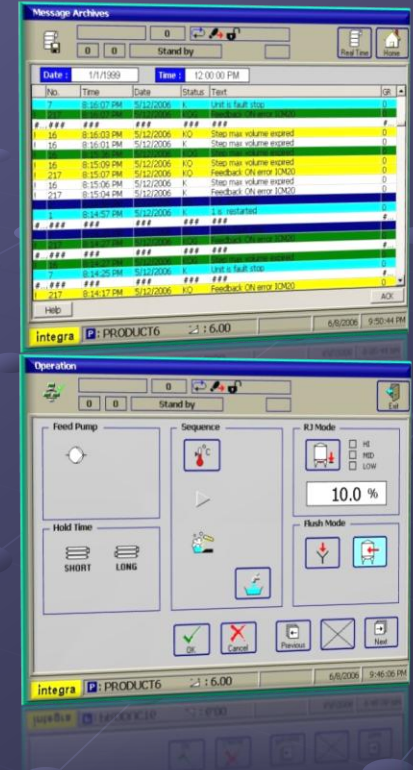
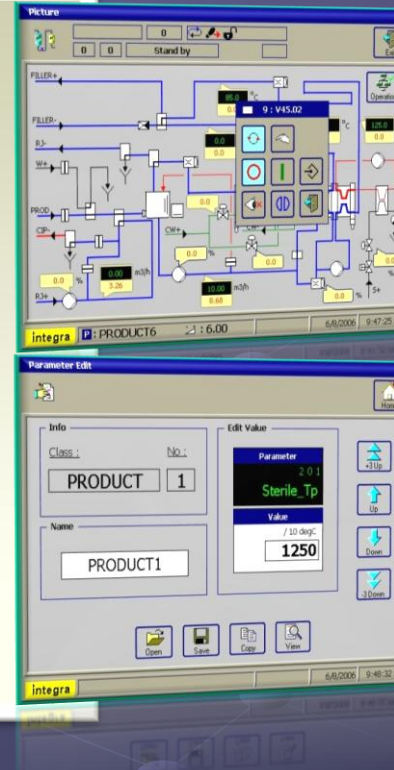
Dairy product pilot plant incl. Pasteurization/UHT pilot plant, deaerator, homogenizer, aseptic filling station

Speciality:

Turn key project, design & engineering (process, piping, electrical and automation), supply, installation, test run & commissioning, validation, training,



Project: Sterile Hormone Production Plant
 Industry: Pharmaceutical
 Description: Fully automated production incl. hot/cold WFI distribution, mixing tanks, filtration, CIP/SIP, more than 200 automatic valves to be controlled
 Speciality: Turn key project, design & engineering (process, piping, electrical and automation), supply, installation, test run & commissioning, validation, training, compliance documents



Project: Energy Drink Production
 Industry: Beverage
 Description: Fully automated pasteurizer "INTE-PASS", hot fill
 Speciality: supply, test run & commissioning, training,

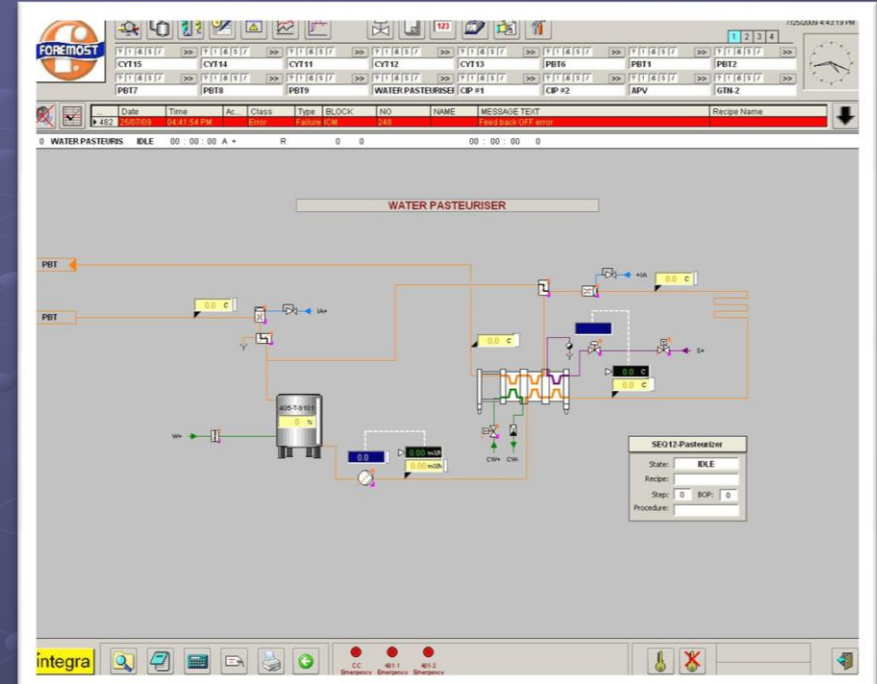
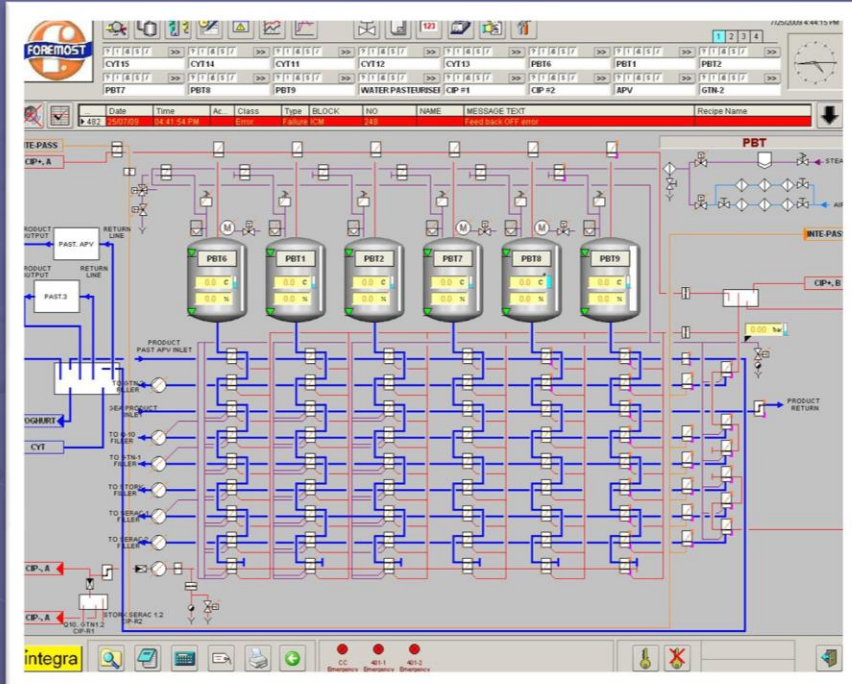


Project: 2 x Circuits CIP Plant

Industry: Beverage

Description: 2 x 50 m³/h CIP supply for cleaning 5 filling lines, comprised of fully automated CIP units "INTE-FLUSH" integrated to 3 of 10,000 L tanks

Speciality: Turn key project, design & engineering (process, piping, electrical and automation), supply, installation, test run & commissioning, training,



Project:

Industry:

Description:

Speciality:

Plant Centralized Control System

Dairy

Upgrade the existing plant with new central control comprised of 2 "SIEMENS" S7-400 + 3 WinCC operating stations, new control cabinets, water pasteurizer, 5th supply CIP circuit

electrical , automation and software engineering, supply, installation, test run & commissioning, training,

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“THANK YOU”