**PETROLIMEX INFORMATION TECHNOLOGY &
TELECOMMUNICATION JOINT-STOCK COMPANY (PIACOM)**

**PETROLIMEX INFORMATION TECHNOLOGY AND TELECOMMUNICATION JOINT
STOCK COMPANY (PIACOM)**

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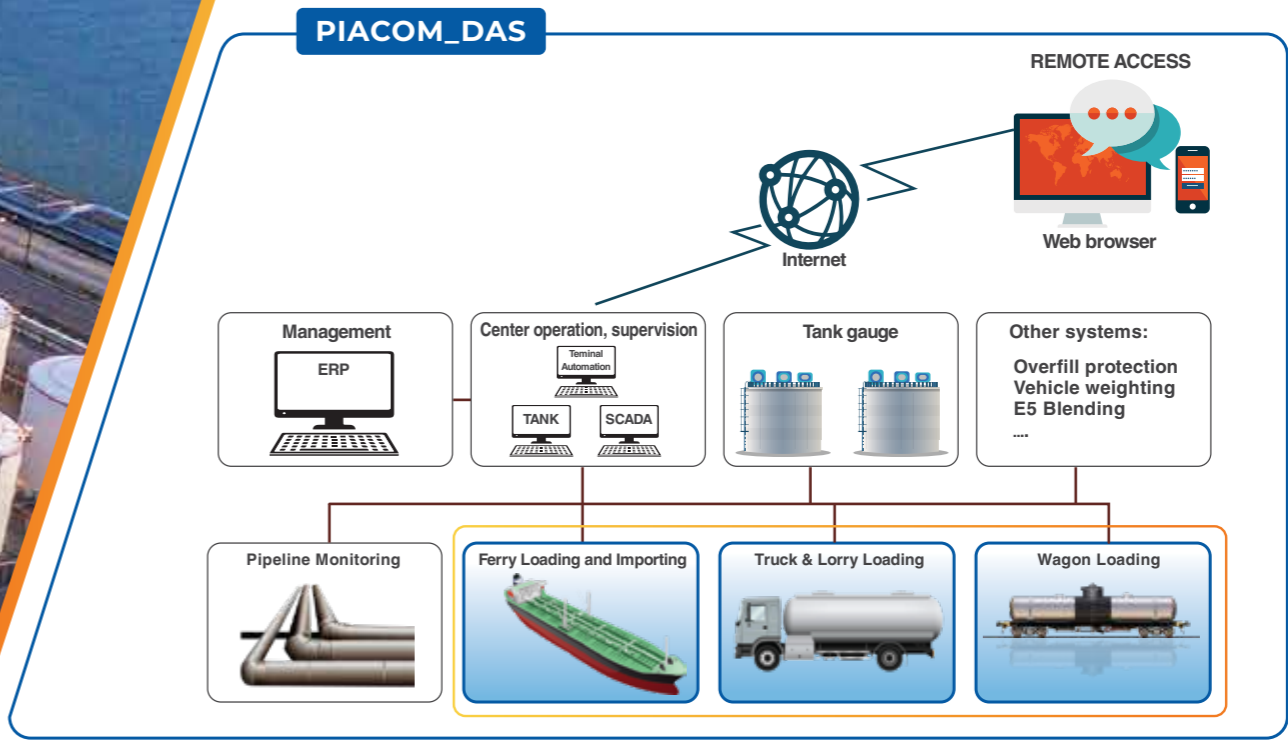**INTRODUCTION TO DEPOT AUTOMATION SOLUTION**
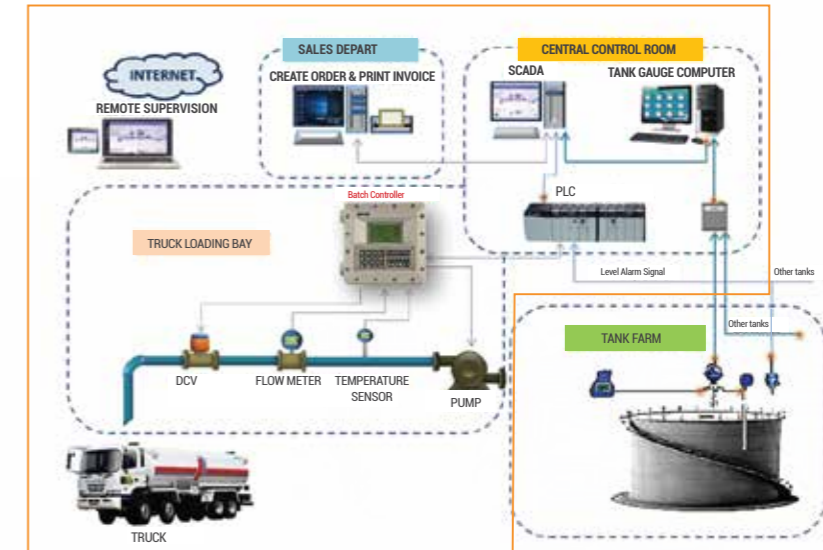
PIACOM_DAS

PIACOM_DAS

PIACOM_DAS - a depot automation solution is the core of the master petroleum terminal automation solution designed and developed by PIACOM. PIACOM_DAS offers remote control, management and supervision to entire system operations: Truck loading Depot, Ferry loading Depot and Wagon loading Depot.

PIACOM_DAS

REMOTE ACCESS

Internet

Web browser

Management	Center operation, supervision	Tank gauge	Other systems:
ERP	Terminal Automation		Overfill protection Vehicle weighting E5 Blending ....
	TANK SCADA		

Pipeline Monitoring | Ferry Loading and Importing | Truck & Lorry Loading | Wagon Loading

PIACOM_DAS SOLUTION STRUCTURE

Depot Automation System is a core application for petroleum terminal operations. The system automatically operates depending on preset volume to control amount of petroleum to be loaded to truck, ferry and wagon.

- Batch Controller technology is applied in the system to collect data from preset volume, current temperature, flow rate then control pump's motor and control valve to ensure accurate volume delivered in accordance with the preset volume.

- Using simple and accurate operation procedure which is initiated from magnetic card/ work-order and well-integrated with the Management Information System (MIS).

- All parameters of loading process are supervised and displayed on SCADA computers.

- Safe conditions are controlled in loading process: Ground monitoring, overfill protection, emergency stop buttons.

- The system is designed with high provision to ensure continuous operation, minimizing the interruptions.

- Direct mixing of ethanol and gasoline is automatically controlled in the pipeline to create various biofuel products (E5, E10) in accordance with the preset ratio

PIACOM_DAS has been developed basing on the instrument and final actuator from world leading technology manufacturers and depot control software developed by PIACOM

Management/ Supervisory Software

Programmable Logic Controller
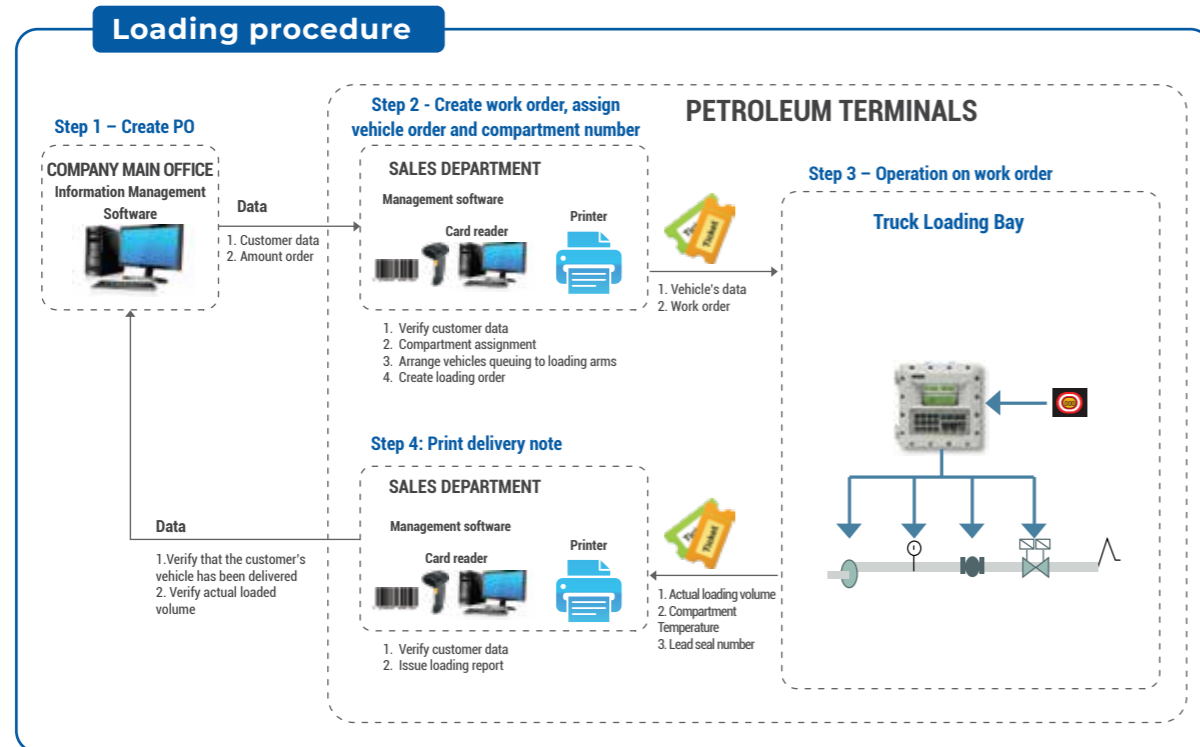
FIELD INSTRUMENT

FUNCTIONS

MAIN FUNCTIONS
- General configuration (photo, logo, company name; create/edit/delete terminal/goods/price/client data; data on vehicles and drivers; searching engines)
- Site configuration: loading arm and group of loading arms, card, etc.
- Sales functions: Order registration, order approval/cancellation, lead seal, create workorder, etc.
- Invoicing/delivery printing to customers
- View reports: In addition to direct view of reports, reports may be exported in format .xls or .pdf
- System administration
- Error warning

EXTENDED FUNCTIONS
- Vehicle order (vehicle dispatch)
- Automatic gate
- Automatic ground monitoring and overfill protection
- Lead seal number scan and management
- Chart-based observation: Real-time loading, historical graphic trend, efficiency running, batch deviation, preset vs real loading volume deviation, etc.

CLIENT DEMANDS ARE FLEXIBLY SATISFIED BY PIACOM_DAS

- Allow customers to configure the image display for Home, Logo and Company/unit's information.
- Allow operator to preset expected volume
- Control final control element to deliver exact preset volume
- Collect data and calculate actual loading data (temperature, Vtt, V15, Kg, VCF, WCF)
- Provide real-time measurement data of a loading arm or group of loading arms of a terminal in the form visual table

Loading procedure

PETROLEUM TERMINALS

Step 1 – Create PO

COMPANY MAIN OFFICE
Information Management Software

Data
1. Customer data
2. Amount order

Step 2 - Create work order, assign vehicle order and compartment number

SALES DEPARTMENT
Management software
Card reader
Printer

1. Verify customer data
2. Compartment assignment
3. Arrange vehicles queuing to loading arms
4. Create loading order

1. Vehicle's data
2. Work order

Step 3 – Operation on work order

Truck Loading Bay

Step 4: Print delivery note

SALES DEPARTMENT
Management software
Card reader
Printer

1. Verify customer data
2. Issue loading report

1. Actual loading volume
2. Compartment Temperature
3. Lead seal number

Data
1. Verify that the customer's vehicle has been delivered
2. Verify actual loaded volume

BENEFITS OF PIACOM_DAS

- Centered management, real-time data, easy monitoring

- Easy and remote access for monitoring working data with high security

- Improved production performance, automatic control technology takes over manual operations

- Automatic control and accurate delivery via modern equipment certified with high reliability and safety from the world leading accreditation organizations

- Optimizing functions of instrument and process equipment (flow control valve, batch controller unit, flow meter, pump, etc.)

PIACOM_DAS