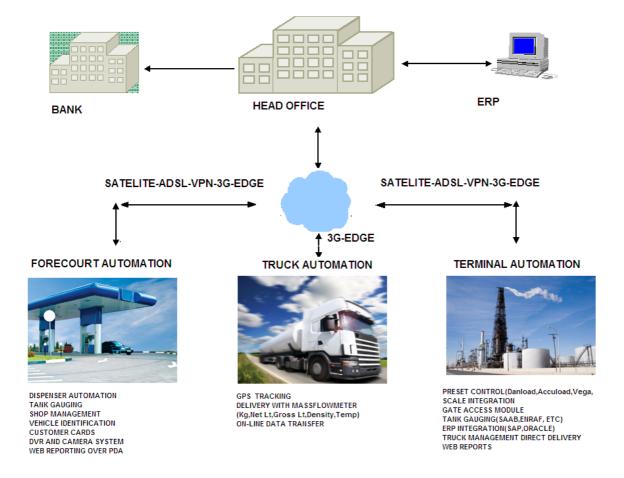


# **FULL AUTOMATION SOLUTION**



"Let us control everything instead of you from a to z"





#### **AUTOMATION SYSTEMS**

#### Station Automations

- Pump automation
- Tank automation
- Customer and Vehicle Identification System
- Station market and Accounting software
- Dvr and Camera system
- Tanker Delivery Integration
- PDA and Web Reporting tools

# Tanker truck Automations

- Liquid fuel tanker truck automation
- LPG tanker truck automation
- Tanker track over satellite
- Dvr Modules

#### Terminal Automations

- Gate Control System
- Weighbridge Integration Module
- Filling Control Module for Platform
- Tank Control Module
- ERP, SAP and WEB integration module
- Web tracking module for Warehouse
- Logistics Management System
- Engine control and Fire Extinguishing System
- Skit Automation for Refinery and Maritime Lines

#### Central Control and Logistics Software

- Station Tracking module
- Tank tracking module and module for automatic entry of filling orders
- Tanker truck control and Vehicle Tracking module
- Central Management Module for Filling Station
- Station Center Malfunction Control Module

# Market and Accounting Software

- Market Control module
- Pre-accounting module
- Loyalty ,Promotion Module
- Web Reporting and PDA support module











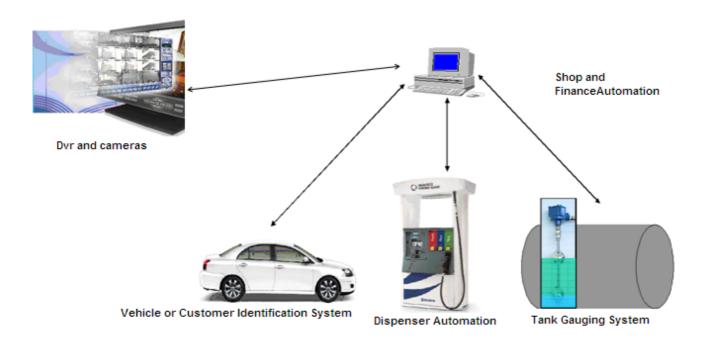




# FORECOURT AUTOMATIONS

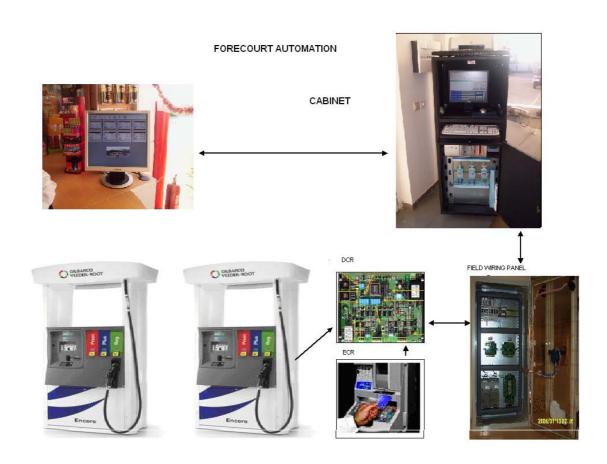


Solutions on the station side have been elaborated in consideration of the needs of station administrators and stations customers. The purpose is to ensure the station administrator's full control over the station, to facilitate to the sales-boosting campaigns and to elevate the customer satisfaction and loyalty.

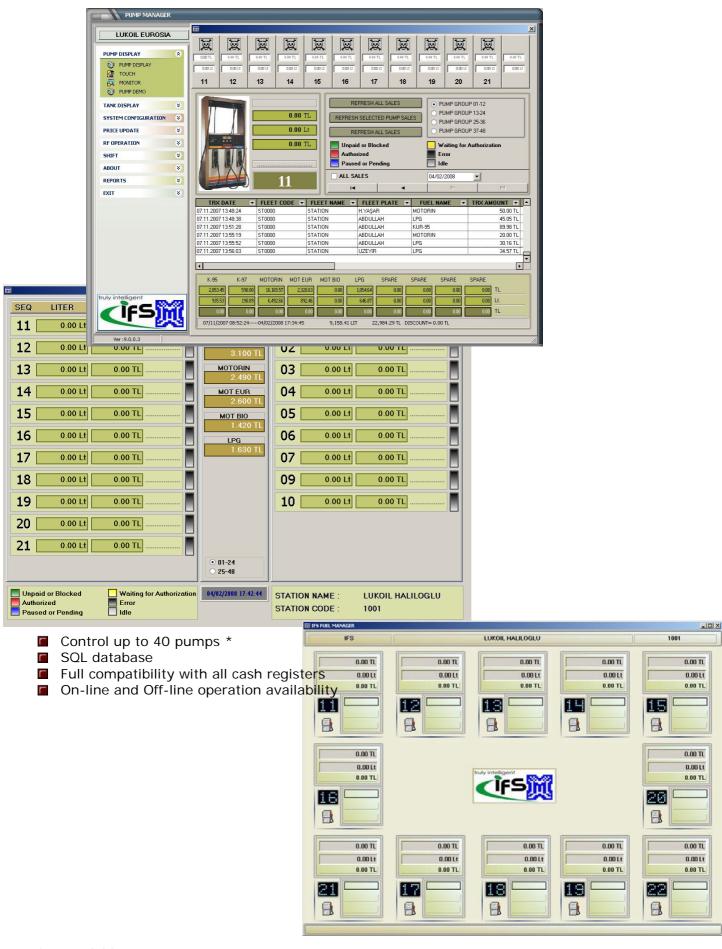


#### **PUMP AUTOMATION**

- Keeping the records of all sales made on the pump
- Tracking the sales particulars via the monitor at the station market
- Enabling each fuel station attendant to sell fuel on each pump
- Keeping undoubtedly correct shift accounts on the computer environment
- Dynamical shift-taking procedure of attendants
- Reporting and tracking the pump sales and shift accounts through flexible and advanced reporting systems
- Obstructing the modification of pump sales rates via the pump
- Pre-paid working option
- Remote access
- Multilingual structure (translatable into every language)
- Accounting integration and full compatibility with all cash registers







<sup>\*</sup>Expandable as per requirements.

# **SALES BOOSTING SOLUTIONS**

In station management, what comes after the control methodology as priority of importance, is the presence and use of sales-boosting systems. Additional modules have been developed to fulfill this need of the station administrators. These modules also aimed at ensuring the customer satisfaction and loyalty as well as sales boosting.

# **Customer and Vehicle Identification Module**

This system enables customers shopping at the station(s) to purchase what they desire without losing time with the payment procedure. The purchases are subsequently invoiced and collected.

Furthermore, these systems ensure the dispense of fuel to the customers' vehicles as per particular limits such as

- Litre
- **Amount**
- **Product**
- Station
- Day/month/hour

to enable the customer to control and track thier purchases easily.

### **Vehicle and Customer Identification Module**



■ ID card Module: FuelCard Cardholder customers, customers showing up at the station purchase fuel with their card "no cash/creditcard payment" and to the extent of the limits specified for e customer. Furthermore, thanks to the keyboard on the pump, manual mileage is keyed in to enable mileage tracking. The system is also furnished with a (password prompting system) to ensure safety. One of the advantage of this module is the low cost.

#### **■** Vehicle identification unit Module

- Module without mileage track: In this Module, the pump identifys the vehicle through the unit attached to the vehicle and completes the purchase without payment to the extent of the limits specified for that vehicle.
- Module with mileage track: Its difference from the above Module, is that it records the mileage of the vehicle during dispensing the fuel, enabling control of the fuel consumed and mileage covered between 2 fuel purchases.

Vehicle identification Module comprises of 2 structural systems:

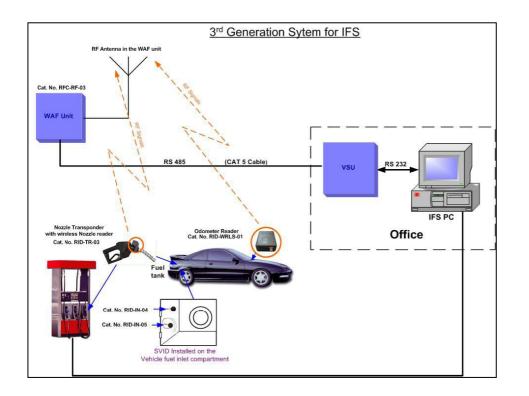
■ Wired Vehicle identification system: Communication between the vehicle and the module recognizing the vehicle, is established by a teflon-coated cable, passed through the hose of the fuel nozzle. The advantage of this system compared to the wireless system is low cost whereas its disadvantage is that the cable inside the hose may be worn out or seals ensuring isolation inside the hose may be required to be substituted in the course of time.

Products employed by wired vehicle identification systems are CE and ATEXapproved.

■ Wireless Vehicle identification system: This system has two different versions namely active and passive pump side. Data transfer is performed dually between the vehicle and master module or pump nozzle and master module by means of radio frequencies. Communication data are protected by the encryption modules. One of the greatest advantages of the system is that its installation may be performed in a short period of 10 minutes and it requires no service after the installation.

Products employed by wireless vehicle identification systems are CE, ATEX and **UL-approved**.

\*\* Pump software is designed to enable the running of multiple TTS systems simultaneously (wired + wireless + card ID system). It runs integrated with all commercially available TTS equipment.

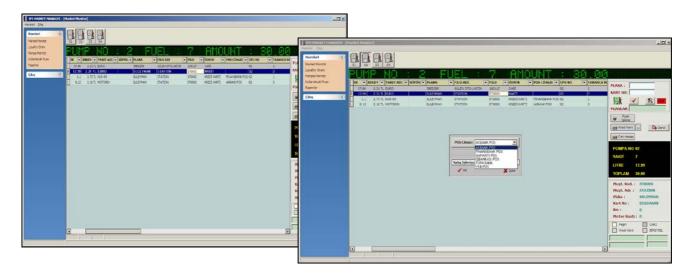






# **Promotion and Loyalty Module**

- Defining Loyalty cards for customers
- Automatically registering points into the card after the sale
- Manually registering points into the card after the sale
- Setting a score coefficient as per the sale (by liter-amount-product etc)
- Availability to utilize in purchases the points earned (in the form of giftware or discount)
- Thanks to the central structure, availability to spend and collect points at any affiliated station
- Detailed score reporting and tracking





#### **Payment System Module**

#### Common Scenario...

Sales made during the day are grouped by cash and credit-debit card transactions held by the station attendants and then shift-change procedure is fulfilled. The accountant or the station administrator would not know the aggregated amount of the cash or credit-debit card slips collected by the station attendant until the end of the shift.

Our payment system Module has avoided this problem. Each sale made during the day is transferred to the appropriate payment system and ensures that the accountant or the station officer track this data during the shift. When the station attendant hands over their shift, the Module allows reporting and checking in advance the aggregate of cash and credit-debit card transactions held by such attendant.

- Matching sales by payment type (from the station market)
- Transferring sales to the payment system via the pump (from the card reader)
- Transferring via pump the sales to credit-debit card, cash or current account of particular amounts
- Matching sales by credit card with the POS device
- Grouping shift reports and sales by payment type, POS device or cash register.

POS-CC REPORT				
Start:	16/04/2007 00:00			16.04.2007 16:58:57
End:	16/04/2007 23:59			
		POS DEVICE	TOTAL LITER	TOTAL AMOUNT
		CITIBANK	2,19	5,14
Overall Sum :			2,19	5,14

- Sales totals by payment type
- The Details of Sales by Credit Card v POS device where the credit card was used. Also the availability to transfer the data used in such detail to the Accounting Software.
- Z confirmation report with sales totals by cash register and breakdown of cash-credit card and current account.

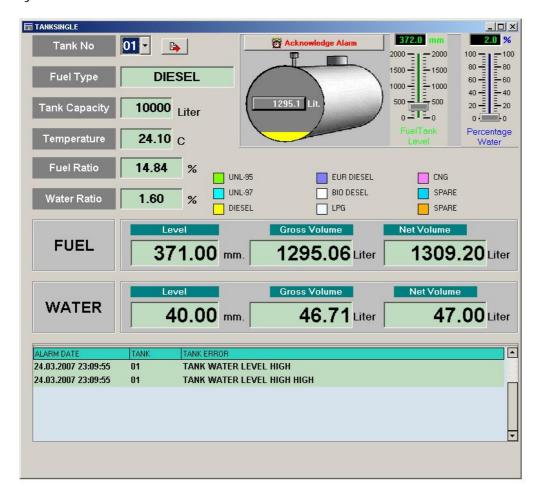


#### TANK AUTOMATION

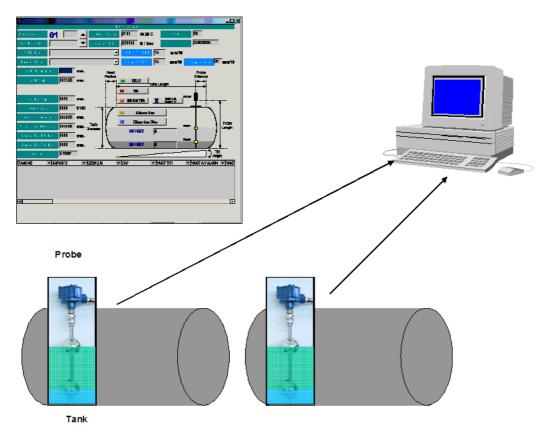
The tank manager software enables online tracking, via the station PC, of actual status of the tanks at the stations, and fillings or values increasing or decreasing in the tank in cm/l after the sale.

Readings taken from the gauge that communicates with the software and that is located inside the tank are transferred via the Tank manager software to the station administrator. The system allows for

- Tracking the tank fillings
- Tracking the decreasing stock in the tank
- Tracking the level of the fuel in the stock
- Tank-related alarms (water level, minimum and maximum fuel amount)
- Tracking the status between actual fuel levels in the tank and sold fuel levels, in case pump automation is installed in the system.
- Yielding definite tank level values with automatic or manual calibration
- Reporting and tracking fuel fillings or decreases by means of flexible and clear reporting systems.

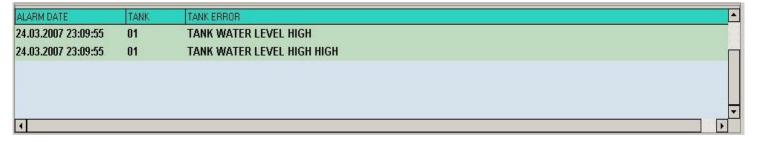


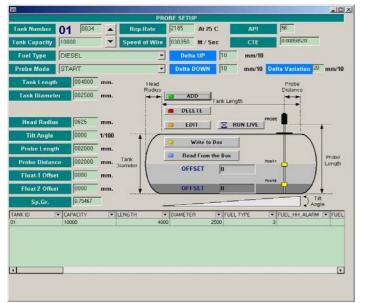
# **Tank Automation** Tank Otomasyonu

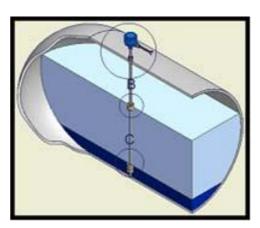


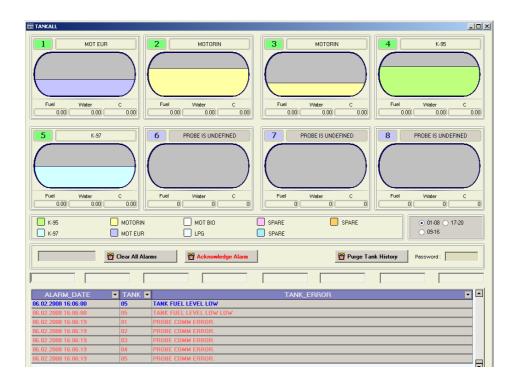
# ■ The tank automation software gives out the following outputs:

- Tank Temperature
- Net and gross fuel amount
- Water amount
- Fuel type
- Tank capacity and the rates
- Alarms: Warns the user about the following tank states:
  - Warnings: Displayed to the screen, SMS and the output module (output module signals excess filling and the following audible warnings)
    - ♦ Excessive increase in water level.
    - Excessively high and high fuel level.
    - Excessively low and low fuel level.
    - Leakage in the tank.
    - Interruption of probe communication
- Filling start & end and filling particulars









# MARKET ACCOUNTING



Petsmart has been developed to meet the needs of a petrol company together with our automation system. With this software both standard operations like market stock control and product sales of the station, shift calculation tracking and also performance improving applications in the station are provided.

These are respectively the pump performance evaluation and rewarding system, loyal customer campaigns and online station tracking.

Also PETSMART installs the dry product control and stock management system which is needed for petrol companies to activate station markets from one location.





Petsmart allows the station managers remotely change prices on PDA, close shifts and track tank stocks.

It also allows the petrol company managers to reach their central offices and their stations from all over the world and keep the track of what they need.

# **Tanker Automation**



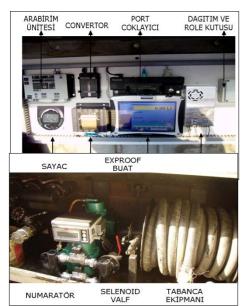
Our Tanker Automation is an automation system which controls the sales over the tanker and keeps a record. After the tanker is set in the automation mode it does not allow any sales or supply operation out of the automation. It keeps a record of the sales by carrying out measurements with tanker counter or mass flow-meters installed on the tanker

- It keeps a record of all sales carried out over the tanker.
- $\Gamma$ It is integrated with customer recognition and vehicle recognition systems. (Wireless)
- It locks the valves in a black list situation.
- Γ It provides online data flow over GPS and GPRS.
- $\Gamma$ It provides the monitoring of tanker location information from the center.

It does not allow the use of valves before the customer enters in the location with station location definitions.

It provides invoices over the tanker with Mass flow-meter system.

#### **COUNTER SYSTEM**



- This system is only used for fuel tanker.
- When the tanker is in automation mode it does not allow discharging of the fuel out of automation.
- The automation is started with the card given to the tanker driver and the discharging starts when the amount of fuel to be discharged is entered in the system.
- The amount of fuel, driver information, hour and location information is sent to the center via GPRS.
- With the customer and vehicle recognition system the tanker can only be discharged by the customer.
- The discharged fuel is transferred to the account of the current in the center.
- The customer is given a slip (invoice) after the discharge of fuel from the tanker.

#### MASS FLOW-METER SYSTEM





- It is the system used for fuel and LPG tankers.
- System provides the information of the supplied fuel like density, gross and net liter, kg and temperature.
- Tanker can be tracked via satellite for its location.
- When the tanker is in automation mode it does not allow discharging of the fuel out of automation.
- The automation is started with the card given to the tanker driver and the discharging starts when the amount of fuel to be discharged is entered in the
- The amount of fuel, driver information, hour and location information is sent to the center via GPRS.
- With the customer and vehicle recognition system the tanker can only be discharged by the customer.
- The location of the customer is defined in the center so as to prevent the supply of fuel in a different location.
- The discharged fuel is transferred to the account of the current in the center.
- The customer is given a slip (invoice) after the discharge of fuel from the tanker.

#### TRACKING OF TANKER VIA SATELLITE

All tankers are defined in the system. The location of tankers are tracked from the central control as they move.

The supply points for tankers are defined in the system as orders. (SAP, Oracle, LOGO etc can be automatically transferred)

The location information of the supply points are defined in the system.

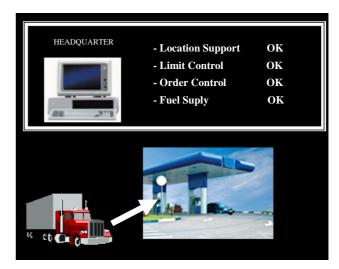
When the tanker arrives at the station or the location of the customer for fuel supply it carries out information matching over GPS or GPRS.

After this operation if the results are OK the valves of the tanker are switched.

If not the valves are locked and the supply operation is not carried out.



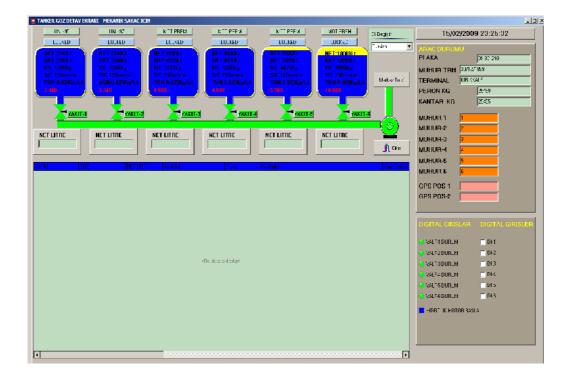






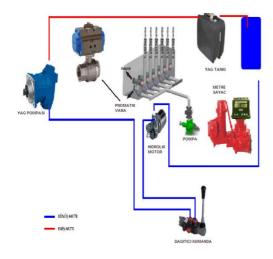
#### TRUCK CONTROL SOFTWARE

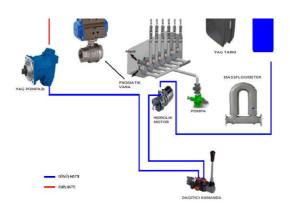
- Truck Management for ADR
- Truck Management for LPG
  - ❖ Fully job order and direct delivery control from the headoffice.
  - Terminal loading transactions automatically loaded to into the truck database.
  - On-line data transfer to headoffice.
  - \* Real time data with Mass Flowmeter (Kg, Net Liter, Gross Liter, Temp and Density)
  - PD meter info as a (Net Liter)
  - Multilanguage (English, Russian.vs.)
  - SQL Database
  - ❖ CE 5.0 or Windows XP Embeded Operating System
  - Vehicle computer
  - Custody data transfer





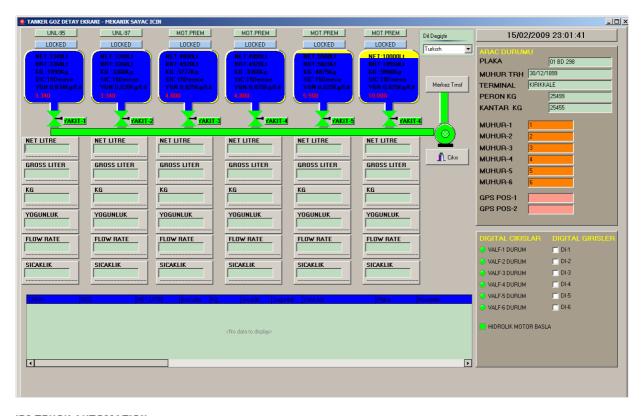
# Truck with ADR feature











#### IFS TRUCK AUTOMATION PLATE = 34 ERT 35

TERMINAL:KORFEZ COMPARTMENT:1 KG : 12301 NET LT : 14784 GROSS LT: 14774 TEMP : 11,2 DegC DENSITY: 0,845

DATE: 26-02-2209 09:11:23 ORDER ID: 0026020004

TERMINAL LOADING INFO

COMPARTMENT:1 KG : 12301 NET : 14784 GROSS: 14790 TEMP : 17,5

DENSITY:0,845 (15 DegC)



#### TERMINAL AUTOMATION



The Filling Station Automation ensures the tracking, reporting and confirmation of all units at the Filling Station in an inter-integrated manner. The system confirms the product leaving the platform by weighbridge reading and tank stock output.

# Tanker truck Filling Point

- Preset control
- Mass flowmeter control
- Additive injection control

# Weighbridge readings

- Weighbridge confirmation
- Equal weighbridge database integration
- Empty and loaded vehicle's weighbridge reading
- Comparison of the previous empty value of the vehicle
- Checking the date when the vehicle has last left the terminal

#### Tank Field

- Tank level control
- Tank temperature and density control
- Tank leakage alarm system

# Gate Entry System

- Vehicle identification or Customer identification system
- Job order control of the incoming tanker truck
- Routing the vehicle to the gate or the weighbridge as per the operational steps
- Web-based demonstration of the vehicle's location at the station
- Number plate control via the camera option

#### Logistics Tracking

- Entering job orders into the vehicles of companies that will get stock from the station
- Automatic invoice issuance
- Issuing the customs declaration form of the outbound tanker trucks and submitting it to the principal custom house (Automatic transfer)

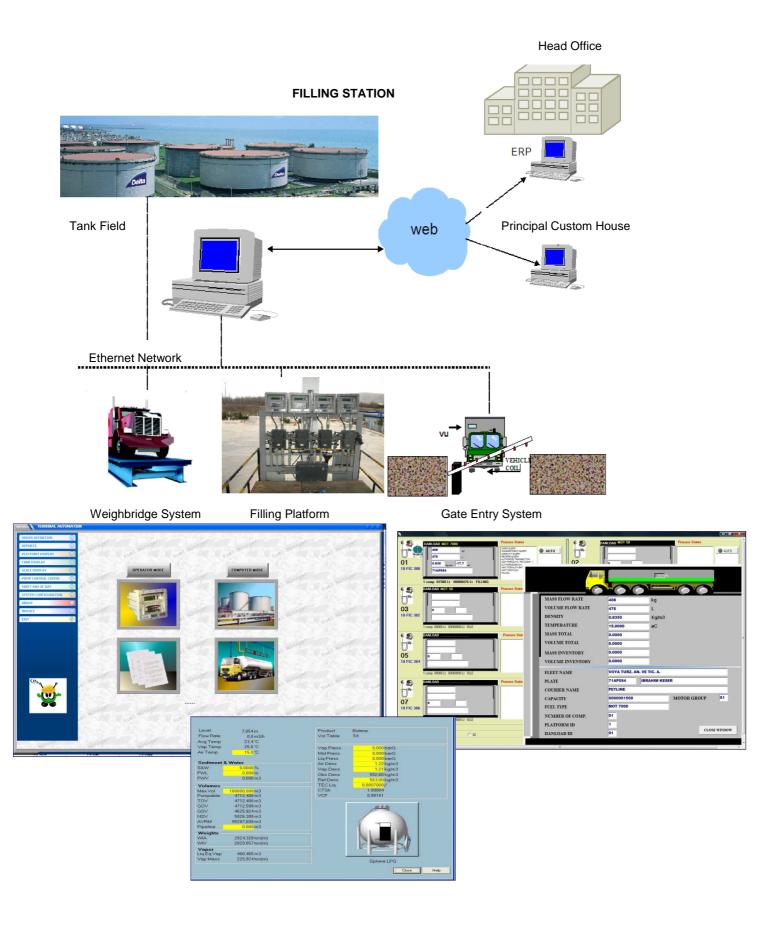
# Fire alarm and fighting systems

- Automatic fire fighting and foaming systems for the tank field
- Fire sensing at the filling area











# **Mass Flowmeter**



# **Terminal Turnkey Delivery**

- Construction Project
- Electrical Project
  - Low Voltage
  - High Voltage
- Mechanical Project
  - Platform Mechanical
  - Additive Injection
  - ♦ Marker Injection
  - Tank Mechanical
  - **Automation Project**
  - Commissioning





# Filling Platform

# Grounding





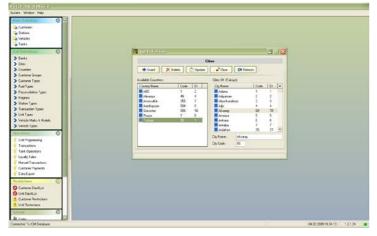








#### CENTRAL TRACKING

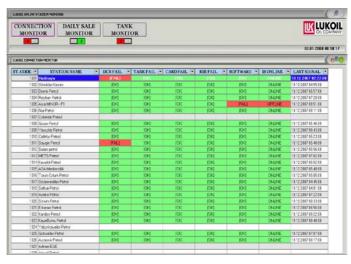




ICM Our Central is Manager Software, which is a Head Office application designed for use at the head offices of oil companies. ΑII administrative regarding the central fuel use of the customer (fleet), station (reseller) and vehicles are performed via ICM. Sales at the stations are audited, organized and reported here. Also the fuel expenditures of the customers are audited and reported via ICM. Programming of the units and fuel usages of vehicles are again monitored through ICM. In brief, ICM is the automation control center developed by us for the liquid fuel sector. Besides, ICM runs online. All operations on the field side are simultaneously displayed on ICM. The performance may accelerate or slow down in parallel to the solidity and strength of the stations' own internet connections.

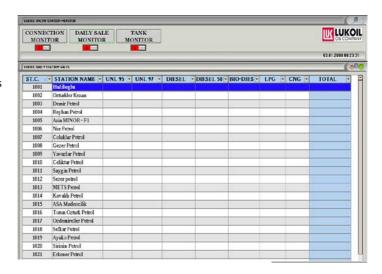
- Station Automation Tracking and Reporting
  - Tracking the Station's Sales Totals
  - Tracking Tank Levels at the Station
  - Tracking the TTS system
  - Capability to Enter Breakdown Forms Online
  - Tracking the Current State with card system
  - Tracking the Loyalty
  - Day-Week-Month-Location-Balance-Driver Limits
- Tanker truck Automation Tracking and Reporting
  - Sales Data (Density-Temperature, Net-Gross Liter and Kg)
  - Vehicle Speed, Position data
  - Vehicle and Customer Identification System
  - Data of invoices issued on the vehicle
- Filling Station Tracking and Reporting
  - Tanker truck Filling data
  - Weighbridge readings
  - Tank state and movements
  - Online Invoice data
- Station Center Malfunction Control
  - Pump, Card Reader, TTS, Probe and Online Connection Malfunction Condition
  - Station Sales
  - Tank Levels
  - Site Video Monitoring





# **Specifications**

- Online &Offline- Semi-Online operation
- XML safe data transmission
- Option to work with the SQL and ORACLE databases
- SAP-ORACLE-LOGO integration
- Option for centrally displaying ads at stations
- User and authorization definitions
- Multilingual interface

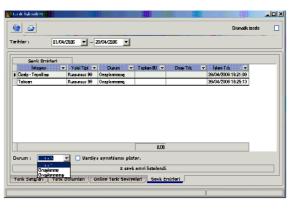




#### **Online Tank Operations**

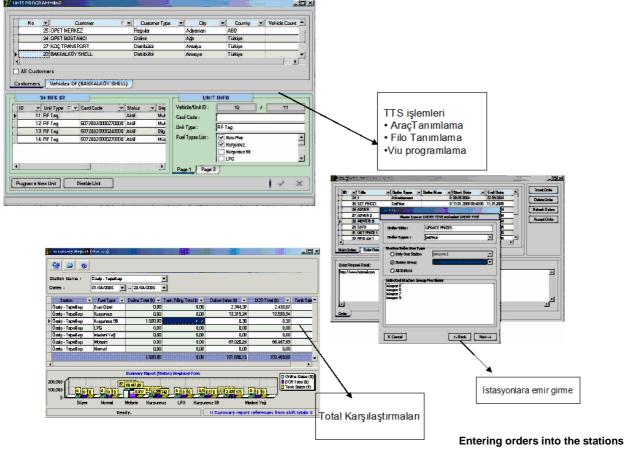
- Grouping by tank levels
- \* Entering delivery orders for stations that should be supplied with fuel
- \* Comparison between actual filling and the delivery order
- \* Control of the Automation-Cash register-Pump Electronic Totals
- \* Comparing the actual sale with the tank level





#### TTS operations

- \* Vehicle Identification
- \* Fleet identification
- \* Viu programming



**Comparison of Totals** 

#### INSTALLATION

- PREPARATION AND TESTING: All materials are tested at the simulator environment and brought ready for installation to ensure that the technical staff working in the field suffers no failure or breakdown. Therefore, the job is fulfilled at once and rapidly.
- **STANDARDS:** Material and Installation quality is the indispensable rule of our Company for the sake of a stabilized and problem-free operation of the system. Particular standards have been introduced on our installation, labor and material quality to avoid problems arising during tests as well as any failure such as wrong connection etc on the part of both the user and the technical staff working in the field during implementation, and further to attain the same level of quality at every site of installation.
- QUALITY: Materials employed in the installation of our Automation system are fully state-ofthe-art products. These materials undergo extensive tests and are included in operational items only after even any minor problem is not observed during the tests. Installation quality is subject to the standards prescribed by IDS, and the staff in the field cannot even willfully violate these standards.
- SMOOTH AND FAST INSTALLATION: For the sake of easing the installation process and avoiding any error, We outsourced its Modules, (which was specially designed for the Cable Terminal Connections that take plenty of time and pose error risks during implementation). Therefore, error risks have been avoided and smoother and swift installations have been warranted.

■ HSSE: We strictly consider the HSSE (Health, Safety, Security, Environment) rules in all Material Selection and Installation processes.





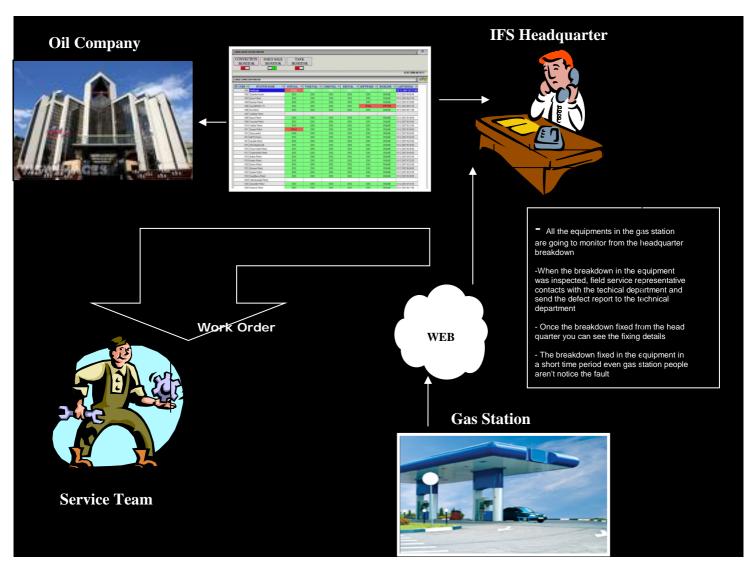
# **EDUCATION**



Mounting, Service staffs, Agencies and Customers are trained with applications of real simulation systems.



#### SUPPORT SERVICES



Our central control staff keeps track of all (hardware equipment, software and connection conditions in the stations) online.

Station automation is on All hardware equipment is working, No problem is present in (Satellite, ADSL connection), the related station does not show alarm on monitor.

In case of malfunction, the cause of the issue shows alarm status for that station and turns to red. This information is also sent to mobile phone of support team manager (or any other phone) via SMS. The team monitoring such problem gets instant updates on any issue that may occur.

Our control team can see the source of the issue from the central control. The station service team is given a clear explanation of the issue and the task.

"2<sup>nd</sup> Card Reader of Pump No.1 is damaged and needs to be replaced." The service team finds the source of the problem in the shortest time!

The station is monitored from the central control; the problem is resolved by the service team.

When the problem is resolved the MALFUNCTION ALARM is off.

Also with this structure we measure the performance of our service teams dynamically.



#### **REFERENCES**:

# **TPIC-TURKEY**

- Foreourt and Shop Automation
- Truck Delivery and Control
- Terminal Automation
- Head Office Management
- Web Report and Vehicle Identifiation System
- PDA Report Management

#### **LUKOIL-TURKEY**

- Foreourt and Shop Automation
- Head Office Management

#### PETLINE-TÜRKİYE:

- Foreourt and Shop Automation
- Terminal Automation
- Head Office Management

# **ALPET – ARNAVUTLUK**

- Foreourt and Shop Automation
- Head Office Management

#### Terminal Automation

İskenderun Delta Petrol Körfez, Aliaga Aygaz(2) Alpet Kıbrıs

Kadoil Mersin

Petline(3) Kırıkkale , Marmara Ereglisi, Körfez

Tüpraş Körfez Vagon dolum Projesi

Dortyol, Kırıkkale Tpic(2)

Uspet Kırıkkale

Meds (UK) Enterprises Limited, Tadcaster Business Park Commer House, Station Road, Tadcaster, North Yorkshire LS24 9JF United Kingdom

**Contact Number: +44 (0) 113-3148883**