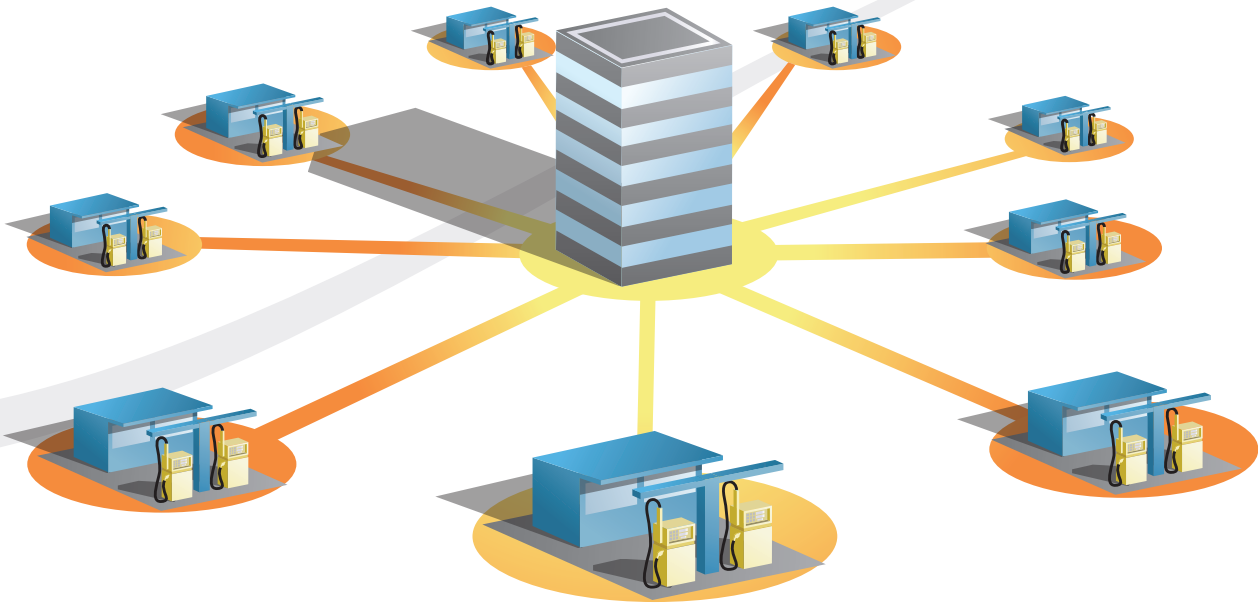# Multi-Site Automation

Overview

Today's fuelling environment is a low margin, volume based business with an increasing emphasis on technology. Oil companies and dealers alike are looking for ways to improve business efficiencies, identify fraud, improve customer experience and increase profitability. Postec develops and manufactures a suite of Retail Automation products that bring all these things together.

Postec's Head Office Management solution provides a low cost method of automating your retail site, allowing you to control and track your wetstock locally or remotely as well as improving customer experience at site.

The combination of the highly stable, solid state Postec Communications Controller and feature rich Veeder-Root Automatic Tank Gauging gives you a best in breed solution specifically designed for the service station retail environment. With the included Head Office software you can now control your entire network with detailed reporting at your fingertips.

Is it for you?

Are you looking for the following?

- Complete transparency of your fuel stock

- Remote monitoring of your fuel pricing

- Optimization of your inventory

- Elimination of manual processes and ways to improve business efficiency

- Eliminate sources of fuel loss

- Increase customer loyalty by improving customer service

- Ensure customer confidence in quality and quantity of transactions.

The Postec Multi-site Automation package gives you visibility of the sites within your network, ensuring accuracy of stock movement and gives you back control.

Don't have a requirement for all this functionality today? Purchase this solution with confidence that the system can scale over time as your business grows.

Key features

Solid state site server

Built on a solid state architecture which is not subject to failure prone mechanical disk drives, or third party operating systems for its core operation, the Postec Communications Controller (PCC) is installed in the harshest retail environments around the world.

Centralised site monitoring

Aggregate wet stock and equipment status reports and alarms across your sites centrally at Head Office.

Remote price management

Remotely manage prices at site from your Head Office, ensuring you sell fuel for the correct amount and respond to competition quickly. Even calculate dealer rebates for price discounting.

Communications options

Communications from site to head office is a critical aspect of this solution. You rely on communications in order to continue making informed decisions about your business. With this solution, you have a variety of communications options available. Whether it is a standard phone line, GSM communications, broadband Ethernet or even VSAT for remote sites, we have an option for you.

Automatic tank calibration

With the combination of Automated Tank Gauging (ATG) and a site server you have all the detailed reporting you require. However, the decisions you make are only as good as the quality of data you have. An incorrectly calibrated tank can lead to unrecognized losses of fuel. The integrated tank calibration software minimizes reconciliation variances by eliminating calibration errors.

Benefits to your business

Reduce your costs

Track the fuel that is dispensed to your customer and the fuel that is delivered to your sites. With the reconciliation process, you will always know exactly where you fuel is going, and where it shouldn't be.

Improve business efficiency

Not only will the system control the devices on your site, but it will log data and provide a range of reports at your Head Office allowing you to make informed decisions about your business. It also automates many previously manual functions on site, freeing up staff to focus on your customer.
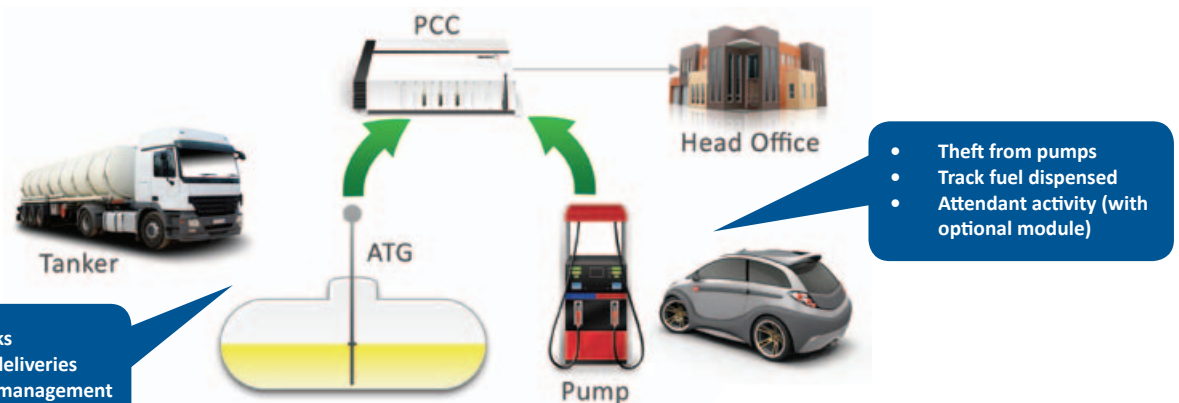
Increase system uptime

Every time the system goes down, you potentially lose money. Therefore you need a technology platform that you know will run 24/7. These products are highly reliable and designed to run in the harshest of environments, day after day for years – something you can't achieve with a PC based system.

Improve decision making

If you can't measure it, you can't manage it. With data from both tanker deliveries and fuel dispensed at site, you now have a range of reconciliation and variance reports available. You have the ability to track fraud, such as theft and unplanned site deliveries, as well as monitoring for leaks to meet environmental regulations.
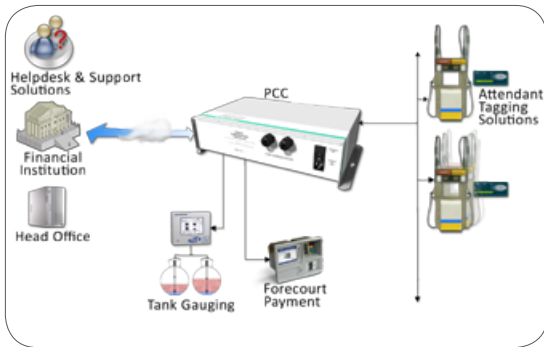
Plan for future growth

You can start with what you need, and add more functionality over time as your business grows. Rest assured that your investment is protected, while still giving you options for future growth.

PCC

Head Office

- **Theft from pumps**
- **Track fuel dispensed**
- **Attendant activity (with optional module)**

Tanker

ATG

Pump

- **Theft from tanks**
- **Unauthorised deliveries**
- **Improve stock management**

Reconciliation of deliveries with fuel dispensed using Multi-site Automation solution
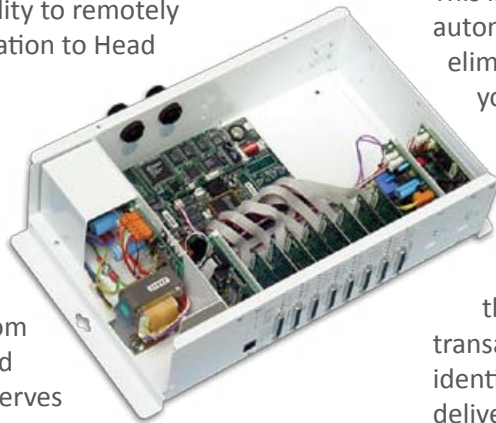
Solution Components

Typical Site Architecture

The Multi-site Automation solution brings you the benefits of a Site Server to control your dispensers, an Automatic Tank Gauge (ATG) to monitor the fuel in your tanks, and the ability to remotely communicate this information to Head Office.

PCC4 Site Server

The site server is the foundation of our automation system. It controls, communicates with, and collects data from all forecourt devices found at retail stations. It then serves this data to a Head Office, or optionally a site console.

PCC4 is both modular and scalable. The enclosure is designed to accommodate our extensive library of forecourt device interface modules, including dispensers, ATG, Vehicle tagging, Attendant or Customer tagging, Outdoor Payment Terminals, as well as an internal modem and peripheral applications.

With the PCC4, you get a site server built for supportability. New application software can be downloaded remotely or from on site, and it has built in diagnostic monitoring and data logging for trouble shooting. Built on a solid state architecture which is not reliant on a PC's failure prone mechanical moving parts or third party operating systems, and with battery back-up allowing it to store transactions when the on-site PC is down, the PCC4 has a high system uptime. This also makes it ideal for commercial unmanned fueling sites in remote locations.

Automatic Tank Gauging

The Multi-site Automation solution can interface to a variety of tank gauges, such as the Veeder Root TLS2 pictured here. Tank Gauging eliminates manual processes such as tank dips, by providing highly accurate, temperature compensated tank inventory and delivery information to Head Office. This information is used to protect your inventory by automatically detecting leaks in your tanks, as well as eliminating fraud. While the tank gauge is measuring your tank inventory, the PCC4 is collecting sales transaction data from the dispensers. By working together, the PCC4 and tank gauge provide a powerful wet stock reconciliation system. For example, you can continue to sell fuel during a tanker delivery, and the PCC4 will reconcile the tanker delivery data with the dispenser transactions. Variance reports are also available to identify losses due to theft, leaks, meter drift and short delivers.

4COM Remote Site Management System

4COM provides automated wet stock control and monitoring across your network of sites equipped with the PCC4. Network management is achieved through automated forecourt data collection (e.g. site deliveries) and forecourt data analysis. 4COM optimizes the communication sessions with sites by polling from the head office and performing analysis on the back end, with data stored in a SQL database. 4COM can give full reports on selected sites or "exception reports" based on established criteria such as equipment failures and wet stock variance. 4COM also enables the Head Office to remotely set prices.

Specifications

PCC4 Site Server

- 4 pump loops
- 64 filling positions
- 4 dispenser protocols (any mix)
- Battery backed Internal Modem with Industrial watchdog reliability (PSTN/GSM/GPRS)
- Programmable Auto-answer
- Industry Standard File Transfer Protocols
- Transparent communications to other devices
- Support for external ISDN and Wireless
- Nominal 220/230/240 VAC (110V supply option)
- Power Max 30 Watts typical 15 watts
- Operating temperature -10°C to 55°C

Automatic Tank Gauging

- Real-time inventory monitoring
- Delivery measurement
- Reconciliation
- In tank leak detection
- Tank alarms
- Multi tank monitoring capable
- Auto calibration (optional)

4COM Head Office

- Windows 2000/XP/Vista or Windows Server 2003/2007
- Firebird SQL database
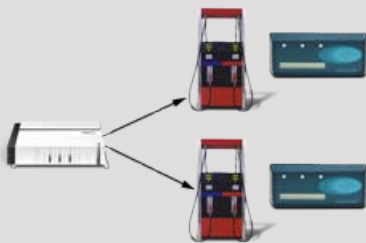
OPTIONAL COMPONENTS

FOCUS

FOCUS Forecourt Manager provides complete back office wet stock management at a site level. Security can be controlled on FOCUS to ensure your staff see as much, or as little, as you want. Site staff can set grade pricing, control dispenser operation modes and allocate bag limits for attendants. A range of reports are available to complement those at Head Office, such as attendant performance reports and fuel reconciliation reports. FOCUS Visual Console is a graphical console for controlling the dispensers on site. Whether used to remotely monitor attendant activity, or centrally authorize fuel delivery without attendants required, the Visual Console provides it all.
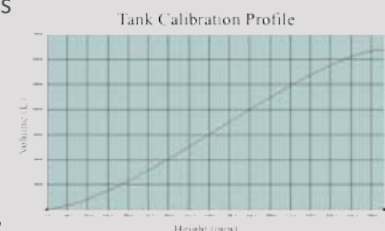
Attendant management

Our attendant management application allows you to track the performance of your attendants as well as manage and reconcile the money attendants collect from customers (requires FOCUS). A TVD (Tagging Visual Display) RFID reader is mounted on each side of a dispenser to track activity carried out by attendants on the forecourt. Focus BOS provides reports on your attendants. The TVD contains an LCD display, LED indicators and a buzzer to provide feedback and instructions to your attendants, such as displaying a message instructing them to deposit money before authorizing the next transaction.

Automatic tank calibration

In our experience, obtaining the most reliable wet stock information depends on the accuracy of the height to volume tank chart. AUTOCAL is a software application that analyzes real time sales from the dispenser versus tank inventory height readings. The result is a more accurate 500 point strapping chart. This new conversion table forms the basis of all subsequent wet stock reconciliation and reporting. The process is completed during one cycle of a tank's inventory. AUTOCAL improves the accuracy of data returned from site, minimizing variance from the reconciliation process and ensuring that real fuel loses are seen.

Tank Calibration Profile

Height (mm)

Figure 2

POSTEC