

AN INTRODUCTION TO TOUCHSTAR TECHNOLOGIES

MOBILE COMPUTING SOLUTIONS FOR FUEL LOGISTICS



touchstar

40 YEARS SPECIALISING IN FUEL LOGISTICS DIGITIZATION

Touchstar's FuelStar delivery software partners with the IECEx approved **TS3300** in-cab tablet to improve efficiency in the transportation of bulk fuel. We can cater for almost any fuel delivery scenario.

- **Home Heating Oil**
- **Retail Bulk Fuel**
- **LPG Bulk & Cylinder**
- **Wood Pellet / Biomass**

The **TS3300** functions as your in-cab hub, consolidating a multitude of data feeds – including tachograph, flow meter, Sat Nav, sound system and printer – into one driver-friendly system which feeds information to and from the back-office. Back-office job scheduling and management software allows jobs and routes to be planned with ease.

Our mobile application shows drivers their daily jobs, provides intelligent navigation to reduce driver downtime and creates an electronic proof of delivery record to reduce paperwork and prevent delivery errors.

SOFTWARE

FuelStar facilitates a live connection between drivers, transport staff, accounts teams and customers. Sharing live data regarding vehicle position, on-board stock, delivery volumes and pricing, enabling better operational decision making and a reduction in administration time and effort.

With our highly flexible entry screens powered by our web-based back-office system we can cater for almost any fuel delivery scenario. FuelStar facilitates greater operational efficiencies and reduced costs.

A typical flow of data through the FuelStar delivery process would be as follows:

Once the jobs are entered on to the system they can be allocated to vehicles in the most logical order, using our planning tool.

Job Planning

Using real time job information, the planner(s) is able to drag and drop the jobs on to the relevant vehicles. Once a manifest has been created it is then sent out to the delivery drivers before they start their shifts. If plans change, jobs can be added or removed from the drivers schedule, in real-time.

To further enhance the efficiency, the system displays the best route on a digital map **SAVING FUEL** and **TIME ON THE ROAD**.



Driver Log-On

The driver activates the Android in-cab tablet, launching the FuelStar application. The system then requires driver ID and current mileage input. This enhances both the security and accuracy of the data returned from the system.

Vehicle Checks

FuelStar (optionally) prompts the driver to undertake his statutory vehicle checks prior to receiving the work schedule. The checks are completed with a signed statement by the driver which includes a location, date and time stamp. Once verified, the vehicle safety sheet is available both in the transport office and locally on the device for roadside check purposes.

Vehicle check faults are instantly communicated to the appropriate team member, ensuring quick identification and corrective action. You have full control to customise which types of faults trigger these escalations. FuelStar manages faults by exception, allowing for rapid identification and remedial action.

SOFTWARE

Daily Task List

On completion of the vehicle safety checks the driver is presented with an overview of the scheduled loading and delivery tasks for that shift. FuelStar allows easy review of location and product requirements and the driver, or back-office team, can plan route and line changes effectively as a result.

Delivery comments by customer and specific order are presented automatically and trigger a read receipt message to the back office. This ensures that key information is shared effectively and instantaneously.

Loading

The driver is required to fill the truck with the planned amount of product. Within FuelStar, the vehicle loading process can be recorded by location, contract and bill of lading number. The data is recorded on the IECEx in-cab tablet which is approved for use in Zone 2 environments. This single-source combination of hardware and software is unique to TouchStar Technologies.

Meter Integration

For metered deliveries, once the vehicle is in position at the customer's tank FuelStar can pre-set the meter to a prearranged quantity. Once the delivery has taken place, details of the quantity delivered, quantities left on board, temperature, location, date and time are automatically recorded.

Delivery

Each delivery creates a digital record of all activities, product delivered, any safety concerns and is immediately communicated to the back-office, where it is then available for office staff to review, reconcile and issue invoices as appropriate. Tickets with all order details, meter stamp and terms and conditions can be printed from the Meter printer and left with the customer. Additionally, a digital copy of the POD can be emailed if required.

Mapping Console

The rationale behind the creation of our Mapping Console is identical to our wider development philosophy; to maximise the amount of real-time information available within a single screen whilst ensuring that this data is accessible in a user-friendly format. The console operates as a powerful stand-alone module within FuelStar, allowing the planning office to identify operational bottlenecks in real-time and to plan re-routes accordingly, without the need to reference other back-end software.

The Mapping Console matches the wealth of client and order information contained within FuelStar with GPS technology to provide accurate real-time data on the geographical positioning of vehicles and LOB (Load on Board) status.

A full historical audit trail of any time period is visible including;

- Driver Login • Trip Start • Loading Location & Per-Compartment Load Quantities
- Delivery Location, Discharge Quantities and Compartment Offload figures
- Trip End • Driver Log-Off

Specific filters can be applied to assist with easy and logical interpretation of the data. These filters include;

- Sorting of vehicles by Current Total LOB, Last seen, Driver Logon
- Excluding of vehicles with devices "logged off"
- Identification of vehicles closest to a particular Address / Postcode / Town / POI
- Advanced filtering of vehicles carrying specific products

The available information can be utilised to optimise delivery processes. For example, 'expected LOB' data can be used to re-purpose the LOB to different deliveries.



SOFTWARE

Printing

FuelStar provides weights and measures approved ticketing. The tickets can be printed from the existing printer (supplied with the meter) or using a thermal printer that will allow logos, signatures and more flexible report printing options.

Customer Signature

Once delivery is complete, customers can view comprehensive and detailed information about the delivery. It is at this stage that they can choose to settle payment on the spot or wait for the formal invoice. Our platform accommodates both payment collection and digital signature capture, offering maximum flexibility to suit customer needs.

Product Allocation to Line and Pot

On returning to the truck the driver has the ability to manage the stock, including line changes. The driver will also be able to ensure that there is an up to date stock allocation per pot.

Reconciliation

All data collected throughout the day are continuously transferred to the back office. Which means it is no longer necessary to wait for Drivers to get back to the yard before it is possible to process delivery reconciliations and raising invoices.

Configurable Workflows

The business logic behind the process flow of the software as well as the screen designs and layout are all configurable to the customers' requirements. The core of the product grows as new customers and new technology continually add to the functionality of the software. This ensures that FuelStar customers are always able to access the most up to date technology in a cost-efficient manner.

Geofencing Technology

Our geofencing feature uses GPS to create virtual boundaries around your delivery locations, automatically triggering actions when the delivery vehicle crosses these defined zones. This provides real-time visibility of your fleet movements and delivery status.

When the delivery vehicle enters a customer's geofenced area for a scheduled delivery, FuelStar can automatically send an SMS notification alerting them that their delivery is imminent. This advance notice helps customers prepare for arrival, ensuring they're "delivery-ready" when your driver arrives.

The benefits are twofold: customers appreciate the proactive communication, while drivers experience reduced wait times between arrival and pump-off, improving operational efficiency across your fleet.

Fully customisable to your specific requirements, our geofencing technology seamlessly integrates with our complete fuel distribution management solution.

KPI Dashboard

The Dashboard is updated at regular intervals, showing driver performance against plan and highlights any circumstances that require intervention.

FuelStar Back Office

FuelStar integrates with all the typical industry standard back office systems. Additionally we have our own back office product.

FuelStar Back Office, does not handle the accounting or CRM processes, but it does offer a real-time view into your field based operations; with views of progress against plan for each trip, total planned volumes, location of trucks and product left on-board.



HARDWARE

TouchStar design, manufacture, support and repair our own ruggedised and IECEx rated, Android tablet, the **TS3300**. It is designed especially for the rigorous use expected in all the possible scenarios associated with the delivery of liquid fuels. The **IECEx** rating is key and allows its safe use in potentially explosive environments.

RUGGED BY DESIGN

The robust construction of the **TS3300** means it is a tablet computer that is built to last. Indeed, we guarantee to support it for at least 5 years from point of purchase to guarantee seamless operation, reduced downtime and a low total cost of ownership.

KEY COMPONENTS PROTECTED
BY AN INTERNAL SILICON CHASSIS



KEY FEATURES

- IP54 Rating
- Drop tested and accredited for 1.5m drops on to concrete
- Operates in wide temperature extremes (-20°C to +55°C)
- High impact polycarbonate rugged touchscreen
- 10M pixel camera
- 4G/HSPA communication
- High-speed, Octacore processor technology





ABOUT RIX PETROLEUM

Rix dates back to 1873 when a sea Captain and Merchant Adventurer called Robert Rix traded out of the Port of Hull. Robert Rix started in business as a shipbuilder, building small coastal craft on the south bank of the River Tees in Stockton.

The company's first major expansion occurred at the end of the Second World War with the easing of wartime restrictions on the sale of oil and petrol. On the 1st January 1947 Robert Rix's eldest son John Robert Rix, the Grandfather of the present Chairman, formed J.R. Rix and Sons with a working capital of £7,000 and one motor ship. Supplying agricultural and commercial diesel customers throughout Yorkshire's East Riding; "old man Robert" as he was fondly called also established petrol filling stations in the Hull area.

Fast forward to the present day and Rix Petroleum is one of the oldest remaining family-owned, independent fuel distributors in the UK. The company distributes and retails petroleum products to homes and businesses from local branches located throughout Yorkshire, Lincolnshire, Mercia, Midlands, North East, East Anglia and Essex. Rix also have three fuel depots throughout Scotland, in Grangemouth, Aberdeen and Montrose.

Enhancing the customer experience

The fuel distribution system at Rix Petroleum is fundamental in maintaining their high levels of customer service. Their previous IT system had served the company well for a number of years, but did not provide the flexibility to support future company growth. As a result, Rix were looking to source a new system to optimise the entire fuel delivery process.



The solution

Designed specifically for the petroleum sector, Rix selected a new system from TouchStar Technologies. The core of TouchStar's 'FuelStar' system is P.O.D. software that is designed to digitise the entire process from loading to delivering and electronic confirmation. The system utilises IECEx certified in-cab computers which fulfilled Rix's requirement for a device with a large driver friendly touch-screen. The in-cab computers were ideal for the Rix operation as they provided a robust, real-time link between the vehicle and the CODAS back office system.

Duncan Lambert, Managing Director for Rix Petroleum reflects on that period of the company's development, *"The benefit of the new system was that it allowed us to provide a single and enhanced means of communication between ourselves and the driver. Our investment meant we had an efficient way of communicating to the driver and the ability to receive communication back in real time which was not possible with a manual paper based system"*.

The development of solution

Rix Petroleum worked in partnership with TouchStar and CODAS to ensure that the original system delivery dates were achieved. Sam Stanley, IT Project Leader for the new system implementation explains, "Considering this was a brand new system for us, we were very impressed with how smoothly it went when the system went live. This was helped significantly by the comprehensive induction that took place, enabling the drivers to fully buy into the new system".

HOW THE SYSTEM WORKS

Pre-shift

Sales orders are taken by phone and entered into the CODAS back office, which allows for the job to be allocated to a specified driver. Building loads is simple. Orders can be rapidly entered then scheduled and sent directly to the driver on the TouchStar in-cab computers. Rix now has the ability to view the deliveries via the FuelStar mapping console which enables them to consolidate deliveries more effectively. The driver of the vehicle is required to complete the start of shift procedure before commencing the deliveries for the day. Prior to gaining access to the trip details the driver is required to complete a vehicle safety check. The safety checks are designed around DVSA standards and are configurable on a per client basis.

Vehicle loading

As part of the log on procedure, a totaliser reading is taken from the meter providing automatic verification data of the truck and stock status. Upon completion, the driver is instructed by the on-board computer what grade and volume of fuel to load onto the vehicle and confirm loading into each compartment of the vehicle. The system also captures the BOL (Bill Of Laden) numbers supplied by the loading gantry system.

Fuel delivery

Upon completion, the delivery information is updated on the TouchStar in-cab computer producing a delivery confirmation. The driver can hand the device to the customer to confirm the delivered quantities and sign on screen. Connectivity to the in-cab printer then produces a signed receipt for the customer. Using GPRS communication, the delivery data is transmitted to the back office providing real time proof of delivery.

Speaking about the benefit of the system, Duncan Lambert, Managing Director comments, *"Confirming the customer name, capturing the signature and communicating it to the back office in real time significantly speeded up the invoicing procedure. The system enabled us to respond to customer invoicing queries quicker which ultimately benefited our business with improved cash flow."*

Real-time improvements

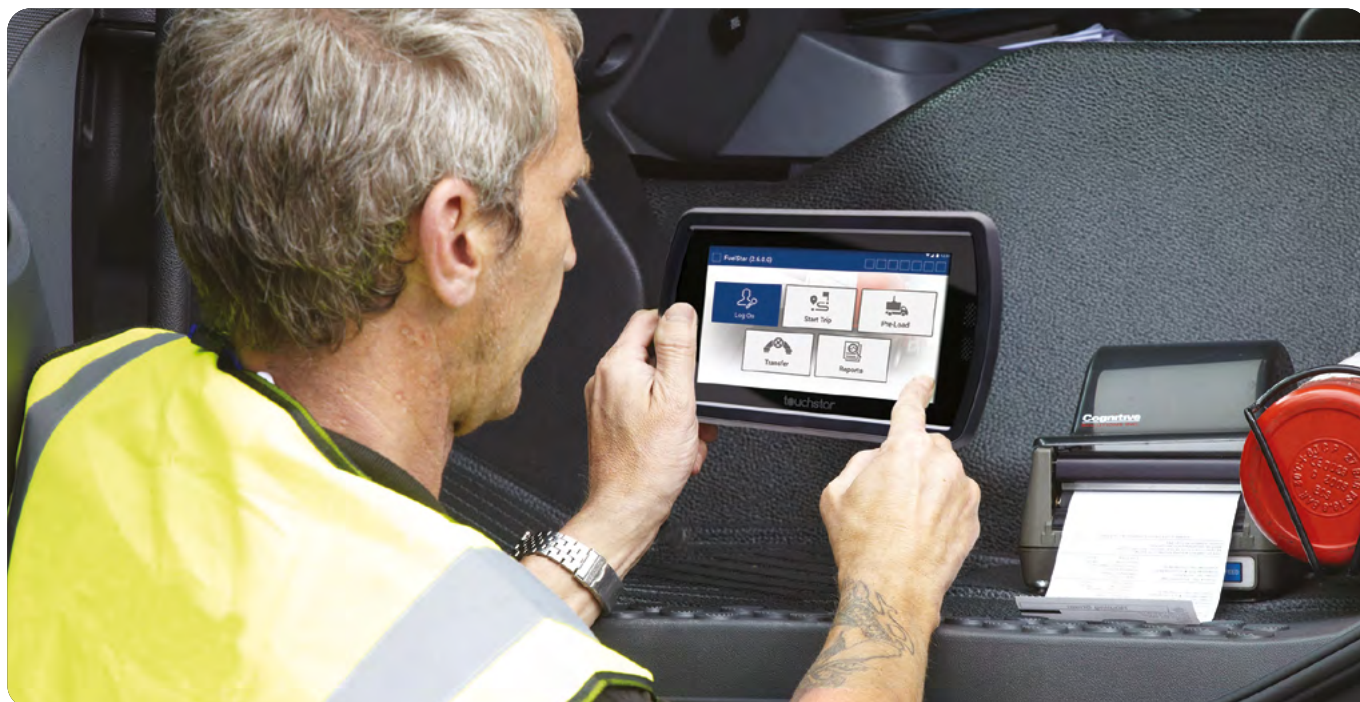
The system now delivers performance information relating to number of deliveries per day, distance travelled per vehicle and volume of fuel delivered. The real time information that the system provides has been invaluable with respect to allowing Rix to study and compare vehicle performance and overall delivery efficiency. Duncan Lambert continues, *"We can physically see the improvements that the system has made to our operation and this is a big step forward in the business. We have absolute confidence in the accuracy of the data we receive back from the system"*.

The next phase

Rix are continually examining ways in which their systems can provide even more benefits to the company and their customers. Having run the TouchStar system for a lengthy period of time, the company were diligent in re-examining the competitive marketplace. Duncan Lambert comments: *"Although we were not dissatisfied with the performance of FuelStar in any way, we were obligated to ensure that our business is operating with the most effective systems that we can acquire. As such, we conducted a thorough re-evaluation exercise which included the trialling of alternative suppliers in certain depots. I'm happy to say that our original decision to adopt the TouchStar solution was fully vindicated as it is clearly still the market leader."*

TouchStar hardware and software solutions are specifically designed for the fuel distribution industry. The company has invested heavily in the development of a new range of terminals based around the Android operating system. This platform offers multiple technical benefits over previous generation Windows CE devices and, as a progressive organisation, Rix readily accepted TouchStar's suggestion to upgrade their fleet hardware. The new devices will continue to be an integral part of the fuel delivery operation and offer significant additional peripheral benefits. For example, the in-cab computers will now operate as phone devices which will preclude Rix having to invest in, and maintain, separate SIM cards. The company will also be able to run additional business applications directly on the in-cab device including HSE and training-related software.

Duncan Lambert concludes: *"We expect to avail ourselves of many additional benefits to the business based on the Android OS and the new FuelStar application. The system creates a great opportunity for Rix to expand the connectivity and visibility between the truck, product, driver and the planning office."*



KEY COMPANY INFORMATION

- TouchStar is listed on the London Stock Exchange (AIM) since 2001.
- The company has almost four decades of experience in providing mobile computing solutions.
- 500,000 systems implemented worldwide, across 500 sites.
- The company is a hardware manufacturer, software developer and system integrator.

A SELECTION OF TOUCHSTAR CLIENTS



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Securing the Logistics of People and Product