



# Avoid Lost Profits by Adding Agility and Visibility to Terminal Operations

*“According to a market analysis, most terminals use up to six unconnected databases to run their operations, resulting in significant data degradation and lack of operational transparency / rework.”*

**Terminal Automation Systems Worldwide Outlook – Market Analysis & Forecast through 2014, ARC Advisory Group, 2010**

## What if ...

- You could make changes to shipments after the vehicle has arrived?
- You had real-time access to performance indicators to address safety, environmental impact and regulatory compliance?
- You could see where all your materials are stored in real-time?
- You could get real-time alerts when inventories reach critical levels?
- You could change materials in individual compartments without affecting the entire schedule?

Materials transfer terminals are complex and dynamic operations. Changes occur daily—requiring scheduling changes and conflict resolution with concurrent or subsequent operations. Inability to respond with agility to these changes can cost the facility in demurrage charges, lost revenue opportunities, compromised material quality, and safety and environmental regulation violations. Often multiple data management and reporting systems are used—many of them employing manual entry. These rarely integrate or reconcile easily, so audit reports can become monumental, non-value tasks. And materials inventories can reach critically low or unnecessarily high levels. Furthermore, operations inconsistencies from shift to shift and even from operator to operator can contribute to routing and maintenance errors, faulty or incomplete reporting, and safety / data security risks.

An integrated planning system can enable better, more timely data analysis for more agile operations, to optimize personnel, asset and facility performance.

## SCHEDULE AND ORDER CHANGES

Planned and unplanned changes in terminal operations happen daily, based on customer demand, weather and other unforeseeables. But with operations such as material movements, equipment routings, reservations and order bookings, and maintenance, all running on separate information systems, each change can have a domino effect across the facility—resulting in lost profits from inability to respond with agility to optimize routes and movements.

## COMPROMISED MATERIAL INTEGRITY

Without the ability to always know what material is in each line, and without reconciling available stocks after every transaction, revenues are often lost. Materials transfers can compromise product quality through contamination or incorrect blending, resulting in costly re-work to meet customer specifications. Not knowing what materials are in lines at all times can result in further charges and lost time due to unnecessary flushing.

## UNSAFE OR NON-COMPLIANT OPERATIONS

Late, incorrect or incomplete orders and data collected across disparate areas can result in non-compliance with health, safety and environmental regulations. Pressures on operators to manage concurrent movements, with inconsistent operator training and procedures can lead to operational mistakes, compromised materials and safety issues. All these risks have a direct impact on the facility's bottom line.

## LOGISTICS SOLUTIONS: TERMINAL MANAGEMENT

### INTEGRATED PLANNING VIEW ENABLES BETTER DECISIONS

Emerson's Logistic Solutions helps terminals consolidate current operations, new orders and maintenance activities in a single planning view, enabling better, more agile decision making. When changes are planned you can quickly identify conflicts and resolve them before they become bottlenecks or other problems. A sophisticated algorithm selects optimum routes, taking into account in real time traffic, distance, line length, materials in line, required equipment and other variables affecting optimization.



### MOVEMENT/ACTIVITY RECORDING RECONCILES ACTUAL AND BOOK INVENTORIES

A detailed terminal equipment model lets you to track any segment's past and present content history for reduced routing contamination risk. Tracking material quality across each segment lets you optimally mix grades and avoid re-work. And you can enforce work activities to ensure appropriate set-ups are implemented prior to transactions.

### DATA INTEGRATION AND AUTOMATED REPORTING FOR AUDIT CRITERIA EASE

Integrated training modules ensure operation consistency by keeping all operations personnel up-to-date on the latest practices. You can track personnel training progress and completion and easily provide documented proofs of completion along with proper application of standard operating procedures (SOPs) required to meet audit criteria.

**“Using our own performance indicators, we have been able to compare the performance (using this solution) with our other terminals. The results show faster order handling and an efficiency improvement of up to 30%. We also believe that safety has improved, although we will require a longer period to substantiate this. We were able to process larger than expected order flows in a highly efficient manner. This indicated an increase in the processing capacity and speed of the new application.”**

**Ton van Dijk  
CIO, Vopak**

For more information, contact your local sales office or visit: [EmersonProcess.com/PSS/Contact](http://EmersonProcess.com/PSS/Contact)

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