# Manage Material Movement by Truck

A tailored approach to logistics

Truck Movement is Emerson's Syncade™ Logistics solution for managing material movement by truck. This complete turnkey system takes a modular approach to logistics management and is configurable to suit your specific operational needs. Use it as a stand-alone application or as part of the complete Syncade Logistics system. The Syncade Truck Movement solution is a robust, efficient, easy-to-use system that optimizes trips, streamlines processes, supports unmanned operations and securely regulates facility activities.
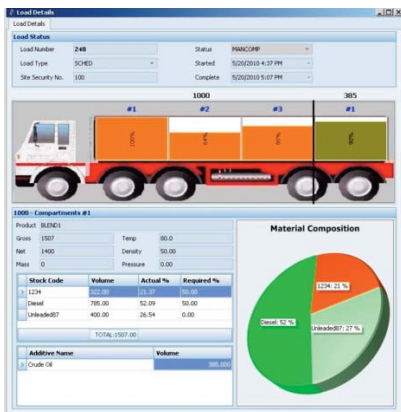
Truck Movement

Planning

The system captures stock and asset availability, generating reports at shift changes or by request. These reports help operations plan for subsequent periods and optimally use facility assets. The system can also provide stock availability

information to customers, enabling them to to plan their schedules more productively.

Other key Planning features include:
- Maximize trips in a shift
- Expand asset utilization

Scheduling

Slot booking allows customers to define the pick-up date and time for their orders by reserving timeslots at specific loading bays. The system divides the loading bays' capacity into timeslots, noting their availability to customers for advance booking. A customer places an order, books a slot and only then gains access to the terminal for pickup. Slot booking also provides the capability for terminal site personnel to limit or block slots in instances such as loading conflicts, product unavailability or required maintenance.

Other key Scheduling features include:
- Control traffic
- Manage terminal throughput
- Reduce vehicle on-site time

Order Management

When orders come through the Syncade Order Management system, operatons is able to allocate stock and equipment, manage quantities and fulfill customer obligations. Components of planning, scheduling and information management come together to help ensure that orders execute smoothly and efficiently.
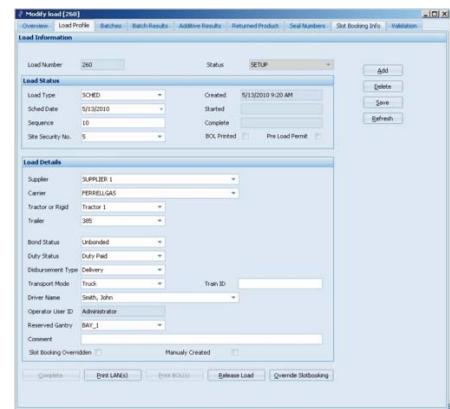
Order Management

Other key Order Management features include:
- Integrates with ERP orders
- Manages allocation orders
- Digitizes and integrates manual orders

Overview—Entry, Exit, Scale, Tank, Gantry

Entry

Access devices such as card readers and biometric scanners secure entry to the facility. Drivers without proper

identification cannot access the facility. Once the system grants entry, the driver receives a Loading Advice Note (LAN) with movement instructions. This helps to control the flow of vehicles into the terminal.

Other key Entry features include:
■ Confirm scheduled orders
■ Verify trucks

Movement

Before the system allows movement, it reviews all information and ensures the customer meets business permissives and the truck meets gantry (bay) control requirements. The system actively remembers what material was in a specific compartment on a truck's last trip to avoid contamination. Once all the verification is complete, the system authorizes the movement.

Other key Movement features include:
■ Control bay assignment
■ Verify capacity
■ Manage variable sequences
■ Allow split loads

Weigh-in, Weigh-out

Facilities can use weigh stations in moving materials such as LNG, LPG, condensates, chemicals and fertilizers. Before movement, the system takes the truck's tare weight, and after movement, it takes the gross weight. Based on these weights, the system calculates the net weight and then logs it on the Bill of Lading (BOL).

Other key Weigh-in, Weight-out features include:
■ Detect materials on-board
■ Demand regulatory weight limit requirements

Information Management

The system generates and archives significant documents, including the BOL, for every completed order and/or trip. Once the system has generated and archived a BOL, no one can alter it. The system can then transmit the BOL electronically to customers, if needed. If instruments malfunctioned or were calibrated incorrectly during movement, operations has the flexibility to go back into the system later and correct the information without losing captured information.

Other features of Information Management include:
■ Throughput reports
■ Stock reconciliations reports
■ Stock balancing reports
■ Meter totalizer reports
■ Calibration reports
■ Flushing reports

Exit

When an order is complete, the system generates a printed BOL, which the driver picks up from a designated area before leaving the facility. The driver would not be able to exit prematurely without first completing the trip or order and receiving proper documentation. If an order is incomplete, the driver must see the

supervisor for corrective actions to override the system.

Other features of Exit include:
■ Control time-lapse trip configuration

Order Management

Gantry (bay) Configuration

Emerson provides a complete turnkey solution that includes meter (turbine, corriolis), control valve (digital, hydraulic), pressure transmitter, preset controller (DL8000, the DeltaV™ digital automation system), temperature probe and grounding and overfill protection (the DeltaV SIS system). Communication support is Serial (MODBUS), OPC and Ethernet.

For more information, contact your local Emerson Process Management sales office or visit:
www.EmersonProcess.com/Syncade