Optimize terminal operations and commercial activity

TerminalManager™
Emerson’s next-generation software platform for management of terminal operations and commercial activity
Instead of dealing with frequent delays and a lack of critical information, what if you could achieve greater visibility to terminal activity, enhance customer communications and streamline operations to safely maximize terminal throughput?

To meet customer and market requirements, terminals need a robust operations management solution to manage, organize, coordinate and control the people, equipment, technology, information and other resources needed to move product into, within and out of the terminal. Without the optimal use of information and assets, terminals either don’t reach their potential or fail. In a terminal market, complexity increases as a greater number of products are managed and services are provided. Efficiently maximizing the throughput of your terminal assets is critical to remain competitive and profitable.

You are experiencing increasing challenges to meet customer demands and maximize terminal throughput.

Delayed shipment and receiving can result in demurrage of $5K to $50K US per day.

Inaccurate measurements and the additional costs to verify and calibrate can result in a loss of 1 FTE at $75K US per year.

Frequent scheduling delays can lead to loss of both customers and tank leases.

Instead of dealing with frequent delays and a lack of critical information, what if you could achieve greater visibility to terminal activity, enhance customer communications and streamline operations to safely maximize terminal throughput?
TerminalManager streamlines terminal operations and commercial activity in a single software platform.

Total visibility to all aspects of terminal management. TerminalManager provides a single source of data for real-time load rack visibility, scheduling, inventory and stock transactions – and ends the search for lost records and accurately accounts for inventory while managing stock reconciliations in a single application platform.

Streamline loading and unloading operations. TerminalManager streamlines the management of all aspects of production transfers and material movements for truck, railcar and barge loading/unloading.

Achieve greater connectivity to customer requirements. TerminalManager provides greater connectivity to customer needs, including a web portal to manage contracts, allocations, charges, pricing and invoicing for all product movements within a terminal.

Close the books faster. TerminalManager is tailored to handle all order-to-cash activities for storage and distribution of materials including material movements within the terminal, ensuring timely and accurate transactional data.
TerminalManager — your solution to maximize the efficiency, productivity and profitability of your terminal operation.

**Customer Management**
Customers are in need of a single-point solution to manage terminal operations and provide real-time data for all terminal-related activities to ensure accurate billing and invoicing. Wouldn’t it be nice if there was a customer portal available to manage allocation and inventory remotely?

TerminalManager is your answer. The customer portal makes all customer-related data available at all times.

**Billing and Invoicing**
Based on contractual agreement, all customer-related activities need to be captured for billing or reporting purposes. TerminalManager provides the ability to enter all activities as charges for billing or reporting purposes. Product can be priced by UOM and per customer and invoiced according to product moved.

**Inventory Management**
Managing inventory accurately is a prime customer concern. Inventory balancing, reconciling book stock against physical stock and re-adjustment before close-out are recurring needs. Managing gain/loss across inventory requires flexibility.

TerminalManager has all the tools to manage and report inventory accurately.

**Planning and Scheduling**
Trip efficiency and maximum use of terminal assets is important for best-in-class terminal operations. Planning ahead of truck arrivals and movements helps in terminal traffic congestion and prevents any safety breaches. Scheduling and prioritising gantry usage guarantees gantry and product availability.

TerminalManager has tools to both plan ahead and schedule gantries on arrival.

**Facility Access Management**
Enter and exit points for trucks need to be safe and secure. Security includes driver validation, truck and carrier validation, stock validation and availability, customer allocation and reporting.

TerminalManager secures terminal access by validating drivers and trucks before granting entry.

**Loading/Unloading**
Once a truck/railcar is at the gantry, it is important that all controls are validated and in place before a movement is authorized. Knowing the proper amount to load avoids overfill and knowing what was previously in the compartment avoids contamination. Robust communications with batch controllers provide real-time knowledge of batches in execution, enabling appropriate action when alarms occur.

TerminalManager does just that.
Total Visibility to All Aspects of Terminal Management.

When operations or commercial personnel do not have visibility into real-time terminal data, activities and inventory, they must put effort into gathering that information. Collecting and aggregating information from the islands of automation that are often mixed with manual data recording leads to transactional records that can be fraught with errors and losses. Emerson’s TerminalManager provides a single source of data for inventory and stock transactions and ends the search for lost records and accurately accounts for inventory while managing stock reconciliations in a single application platform.

What’s your challenge?
A customer has poor scheduling due to lack of visibility into processes and assets.

What’s your opportunity?
Reduce the delays that impact terminal throughput by improving real-time load rack visibility, scheduling and asset management.

Achieve Complete Visibility with a Single Application

- Single Data Source - Supports generation of master data that is positioned to integrate with an enterprise architecture for multi-terminal access through a centralized server.
- Operations Management - A total view and control of activities inside a terminal, providing validation of movements to ensure materials are moved safely and securely.
- Commercial Management - Order-to-cash functionality including contracts and material allocations, and charges to be accounted and billed along with invoices.

Efficiently Manage Product Movements and Loading/Unloading Operations

- Blending & Additization - Supports sequential and ratio blending at the gantry, ethanol blending and one or more injected additives.
- Co-Mingled Stock - Tanks are either dedicated to a customer or shared with other customers. Stock in a tank can have multiple owners. TerminalManager supports joint ownership of stock and all movements are pulled in and out of the designated tank stock.
- Regulatory Compliance - TerminalManager can be configured to meet regulatory compliance associated with validation information.

Rely on Scalable, Integrated Solutions from Emerson

- OpenEnterprise
  - Integration to DeltaV™ - Terminal solution supports connectivity to DeltaV and OpenEnterprise SCADA using OPC. For movements of chemicals and other material that does not require custody transfer measurement, DeltaV and OpenEnterprise SCADA can be your preset controller options.

- TankMaster
  - Integration to TankMaster - Terminal solution supports connectivity to TankMaster using OPC. TankMaster captures all tank information from RTG via FCU. All tank information including alarms can be viewed in TerminalManager.

- Synthesis™
  - Integration to Synthesis™ - TerminalManager is designed to connect to Enterprise Synthesis and support multiple terminals via a single, centralized system.

For an interactive experience, visit www.Emerson.com/RemoteAutomation
Streamline Loading and Unloading Operations.

Without real-time load rack visibility, scheduling and managing assets can be time consuming and cause delays that impact terminal throughput. TerminalManager gathers and consolidates real-time data and delivers the data to personnel within the terminal to identify constraints before they happen. Terminal personnel can easily perform scheduling and slot booking to prevent crowding, minimize back-ups and prevent delays. By optimizing gantry use, risk is reduced because customers have confidence in the products being loaded and delivered on time.

Effectively Plan and Schedule Terminal Loading/Unloading Activity

- **Time Slot Booking** - Planning is essential to guarantee on-time delivery. TerminalManager provides a slot booking tool that allows booking of truck arrivals by the hour, avoiding delays at the terminal.
- **Bay Queuing** - When a truck arrives, TerminalManager automatically assigns the optimal bay and informs the driver where to go. This avoids traffic congestion at the bay.
- **Terminal Capacity** - Terminals have limited space and truck volume needs to be controlled. TerminalManager keeps track of the number of trucks at any given time without exceeding capacity. Truck return time is controllable as well.

Manage On-Site Safety and Security

- **Overfill Prevention** - The goal of all operators is to have incident-free operation. TerminalManager keeps track of any material on board and knows exactly how much can be filled in compartments to prevent overfill.
- **Contamination Control** - TerminalManager remembers which material in a compartment was last stored and prevents mixing of different material types to prevent contamination.
- **Access Control** - TerminalManager supports automated entry into and exit from a terminal site. Access can be secured by proximity cards, keypad and display panels, biometric scanners and RFID identification of vehicles.

Optimize Gantry Utilization

- **Asset Utilization** - TerminalManager helps achieve maximum usage of all terminal assets such as pumps, meters, valves and gantries by tracking all activities and utilization, ensuring operators have valuable information to optimize product movements.
- **Limit Downtime** - TerminalManager provides a robust solution that minimizes manual operations and avoids re-work.
- **Accurate Accounting** - TerminalManager accurately accounts for compartment capacity and material grades. Truck weights are managed to avoid exceeding maximum allowable transport weights. Any re-work is eliminated.

What’s your challenge?

You need to accurately measure and collect transactional data in real time across the enterprise.

What’s your opportunity?

TerminalManager connected to the DL8000 preset controller leverages a single system to manage month-end inventory and transactional reconciliation, losses, gains and customer invoicing.

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Achieve Greater Connectivity to Customer Requirements.

Customers want results. They also want confidence in your operations during the transaction process. Communicating with customers requires accurate and timely information, or you may lose their confidence and financial opportunities. TerminalManager aggregates information in real time and provides a customer portal to manage orders and inventory positions. In addition, automatically scheduled reports and notifications provide the required information to whom and when it is needed, resulting in complete visibility to terminal activities — whether it is a barge arrival or a truck loaded and departing from the facility.

What’s your challenge?
You lack available data that meets customer expectations and requirements.

What’s your opportunity?
Automatically notify customers of terminal activities, gain enterprise-wide data visibility and improve forecasts with prediction modeling.

Get Visibility and Information When It’s Needed

- **Customer Portal** - Allows customer to view and manage their allocations and stock at any given time. The customer portal allows customers to create and schedule all their product movements.
- **Easy Access** - Having visibility of all activities at the terminal enables customers to manage their accounts and terminal operators to better manage assets and overall operations.
- **Personas** - TerminalManager helps create a persona for each user. Default personas include drivers, service techs, surveyors, control room operator, supervisor and terminal operator. Customers can add more as needed.

Streamline Terminal Activities with Automatic Notifications

- **Email** - All reports can be configured to send via email to one or more customer employees. Data is secured and can be displayed in a variety of standard formats.
- **Driver Performance** - All events are time-stamped and archived. Driver performance can be measured and reported to carrier and customer.
- **Trip Duration** - Trip delays can be caused by issues with the driver, vehicle, validation and other reasons. TerminalManager provides information to customers, enabling them to rectify delays and avoid any surcharges or revenue losses.

Eliminate Customer Disputes

- **Documentation** - Audit trails of all events are archived for further analysis, helping avoid customer disputes.
- **Reporting** - Real-time reporting gives customers information about their related activities. Allocations are monitored and reported, allowing customers to plan ahead.
- **Data Management** - All data is archived and available to the customer. Daily, weekly, monthly, annual and YTD transactional data are available at all times. Pricing and charges are available for accurate invoicing.

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Close the Books Faster.

One of the key challenges when closing out accounting periods is the availability of data for activities that occurred during the period. Product receipts, deliveries and services are frequently documented using manual methods and it can be hard to ensure that all the data is correct and available. With TerminalManager, you will have a single application for visibility to contracts, orders and inventory, making reconciling losses/gains and closing out the period faster and error-free. You and your customers will now have the confidence and the ability to focus on maximizing the overall efficiency of the operation instead of searching for missing data.

What's your challenge?
There is a lack of current and accurate transactional data needed to close the books in a timely manner.

What's your opportunity?
With Emerson’s TerminalManager, you will have complete visibility of product receipts, deliveries and inventory transactions as they occur, with data collected in real time.
Find us around the corner or around the world.
For a complete list of locations, please visit us at www.Emerson.com/RemoteAutomation.