

# DeltaV™ O2CManager™ Software for Liquids Pipelines

Enterprise Order-to-Cash (O2C) Software for Managing the Entire Lifecycle of Liquid Hydrocarbon Transportation and Storage



**Streamline order-to-cash from nominations to invoicing via a real-time web-based interface for faster, smarter pipeline operations**

## End-to-End Commercial Lifecycle Management

- Manage a network of pipelines across the globe within one instance of the application
- Deploy securely on-premises or in the cloud, or as an evergreen SaaS solution
- Enable shippers to submit nominations, view inventory, and track invoices using a web-based interface

## Manage Contracts at the Enterprise Level

- Maintain all shipper contracts in a structured, searchable format, enabling quick access and version control
- Define and manage complex tariff structures, including rate schedules, service types, and multi-tiered tariffs
- Reduce manual errors and improve operational efficiency
- Support dynamic rate calculations based on volume, product, or other contract-specific parameters

## Measure Governance Efficiently

- Control access to sensitive data with role-based permissions
- Maintain comprehensive audit trails for all data modifications within the application and metrics
- Support for measurement & regulatory compliance such as API Standards, SOX, and more
- Create and distribute reports automatically, accurately, and consistently

## Intelligently Manage Nominations & Logistics

- Capture, validate, and schedule nominations from shippers
- Support nomination proration to equitably allocate pipeline capacity among shippers based on contractual entitlements and operational constraints
- Support trade string management for accurate and auditable line trades between shippers
- Reconcile across movement types and shippers

## Maximizing Commercial Efficiency and Compliance Across the Pipeline Value Chain

Achieve higher accuracy, greater efficiency and a shorter month end close by transitioning from disconnected commercial software and systems to an integrated, end-to-end order-to-cash (O2C) solution. DeltaV™ O2CManager™ Software for Liquids Pipelines helps companies streamline the entire order-to-cash cycle at the enterprise level to drive higher performance and greater profitability. It integrates commercial and operational data in a single, highly scalable software application to provide users with a holistic view that enhances transparency, communications and data management.

Available for SaaS deployment, our secure cloud-based software provides users with anytime, anywhere access and enables operations to eliminate complex custom interfaces, cumbersome IT applications and complicated spreadsheets, resulting in a significant reduction in data entry errors and a more efficient process. In addition, pipeline companies remain current with the latest technology and industry standards to fulfill customer requests quickly and efficiently. It automates workflows to reduce training time, centralizes customer support, and implements role-based permissions across the organization to further improve efficiency.

Using standard APIs and Service-Oriented Architecture, DeltaV O2CManager Software for Liquids Pipelines seamlessly connects with other complementary pipeline systems, including scheduling applications such as DeltaV SchedulingManager™ Software for Liquids Pipelines. Our enterprise-grade software seamlessly integrates with ERP and nomination systems, enabling automated workflows across pipeline operations. It aligns ticket distribution, inventory tracking, and related processes while maintaining a centralized, organized, and auditable information repository. The software also integrates with corporate identity and access management systems.

DeltaV O2CManager Software for Liquids Pipelines addresses a critical challenge in pipeline commercial operations by unifying fragmented systems and data across the value chain. Our software integrates with nomination systems, including FlowCal, Lab Analysis Systems, ERP, data warehouse applications, invoicing systems, and Emerson software, creating a centralized repository to ensure every transaction is tracked with full transparency.



### Gain Real-Time Access to All Commercial Data

From order management to compliance and reporting DeltaV O2CManager Software for Liquids Pipelines (formerly known as Synthesis™) is a powerful yet agile system that streamlines the order-to-cash process by ensuring easy, real-time access to all data related to commercial activities.

Centralizing data significantly improves cash flow by reducing the amount of time required monthly to close the books. This process traditionally suffers from delays due to manual tracking of transactions, data silos, and inconsistent workflows. These delays create a backlog of current transactions that diminish operational efficiency and postpone invoicing.

By automating key processes and aligning workflows, the software enables faster, more accurate book closures and enhances overall commercial performance. Pipeline operators are empowered to maintain maximum efficiency across the entire commercial value chain, from order to cash.

As the energy industry continues to evolve, our product-agnostic and scalable software will ensure a highly flexible and future-proof solution to enhance return on investment. DeltaV O2CManager Software for Liquids Pipelines supports the management of any hydrocarbon liquids product moving through a pipeline, including natural gas liquids (NGL) and liquified natural gas (LNG).

**Manage and Plan Nominations with Ease**

Shippers benefit from a fast, intuitive nomination process through the Shipper Portal, reducing effort and complexity. Each nomination is entered directly into the portal and is governed by configurable workflows. Organizations can define a unique lifecycle, such as status transitions, ensuring that each nomination is tightly controlled and only authorized personnel are allowed to make changes. DeltaV O2CManager Software for Liquids Pipelines provides robust proration support to intelligently adjust nominations based on available throughput, ensuring equitable access and optimal pipeline capacity utilization while maintaining fairness among all shippers that are nominating.

Our flexible DeltaV O2CManager Software for Liquids Pipelines supports a wide range of operational scenarios by accommodating both monthly and daily quantity specifications. Nominations can be submitted through various channels, including automated interfaces from external systems such as T4, to enable seamless data integration. Our software also supports bulk nomination uploads via Microsoft® Excel® to aid users managing large volumes of data or for those working offline.



*Figure 1: Customize the configurable dashboard with widgets relevant to your operations.*

Users can adapt to diverse pipeline operations and commercial arrangements by managing complex product movement configurations, such as transfers from a single source to multiple destinations or consolidations from multiple sources to a single destination with our versatile Nomination module. Enabling contractual validations within the nomination reduces contract discrepancies and enforces compliance by ensuring that nominated quantities and product routes are consistent with the terms of the contract.

DeltaV O2CManager Software for Liquids Pipelines addresses capacity constraints by prorating nominations. When total nominated volumes exceed available pipeline capacity, our software automatically adjusts the nominated quantities across all participating shippers, maintaining operational integrity and equitable distribution without manual intervention.

The nomination module provides a comprehensive, secure, and flexible solution that enhances efficiency, accuracy, and compliance across the pipeline value chain.

## Track Trade Strings (Line Trade) Efficiently

Tracking trade strings, also known as line trades, between multiple parties along a pipeline system calls for complex coordination, data accuracy, and regulatory compliance. Transactions are executed sequentially as product flows through the pipeline, forming a “string” that represents the transfer of custody, financial responsibility, and product entitlements to a new owner. Transferring product ownership requires close tracking of nominations from each party and ensuring the nominations match in volume and timing.

DeltaV O2CManager Software for Liquids Pipelines includes a dedicated module for managing trade strings. The system maintains a comprehensive record of each link in the string, facilitating the tracking of the commercial agreement between shippers, marketers, or end users.

These agreements are tightly coupled with the physical movement of the product, ensuring that commercial and operational data remain aligned. Our software automates the tracking of trade relationships, validates product volumes and specifications, and ensures that each transaction is fully auditable and compliant with contractual obligations. This level of visibility and control helps minimize errors, streamlines month-end close processes, and supports regulatory compliance across the pipeline value chain.

## Streamline Ticket Capture & Distribution with Intelligent Algorithms

DeltaV O2CManager Software for Liquids Pipelines is a comprehensive and highly configurable ticket management platform that streamlines and supports the entire lifecycle of operational transactions across custody and non-custody transfer scenarios. Users appreciate the flexibility to enter ticket data either manually or through automated interfaces, ensuring seamless integration with existing operational workflows. Tickets can be recorded in any unit of measure to accommodate diverse measurement standards across regions and commodities. Each ticket also captures a set of observables—critical data points such as temperature, pressure, and density—that are used to calculate net quantities from gross volumes in accordance with industry-recognized API standard calculations, ensuring accuracy and compliance.

Multiple ticket types, including meter tickets, tank tickets, and net tickets, are supported. Meter tickets utilize meter readings along with observables to compute the quantity moved, adhering to the latest API standards for volume netting. Tank tickets allow users to input tank readings either manually or via automated tank gauging systems, with the system calculating the moved quantity using tank strapping tables. Net tickets provide a streamlined option for capturing final quantities directly without requiring intermediate readings, which is particularly useful in simplified or summary reporting scenarios.

Our software also includes advanced functionality for meter proving, enabling users to capture detailed proving data such as run data and meter factors. This feature is fully compliant with API Chapter 12.2 and Chapter 13, ensuring that meter calibration and accuracy are maintained to industry standards. The meter proving data can be directly applied within meter tickets, allowing for dynamic and precise meter factor calculations during transaction processing.

DeltaV O2CManager Software for Liquids Pipelines offers powerful allocation tools to distribute transactions among shippers once tickets are entered. The software supports various allocation methods based on the pipeline's operating mode. For batch tickets, shipper or nomination information can be entered directly on the ticket for straightforward allocation. In more complex scenarios involving co-mingled streams or common carrier pipelines, DeltaV O2CManager Software for Liquids Pipelines offers a specialized module called Account Period Summary (APS) that facilitates bulk allocation of multiple tickets to multiple nominations across various locations. Our APS module enhances operational efficiency by significantly reducing manual effort.

### **Schedule Nominations Effortlessly**

DeltaV O2CManager Software for Liquids Pipelines integrates seamlessly with DeltaV SchedulingManager Software to ensure nominations are efficiently planned, scheduled, and executed. Nominations entered in DeltaV O2CManager Software for Liquids Pipelines are used to create batch plans and simulated product movements in DeltaV SchedulingManager Software. Finalized schedules are published back into DeltaV O2CManager for further analysis, operational tracking, and reporting.

This end-to-end workflow, from nomination through scheduling to reporting, streamlines pipeline operations while enhancing transparency, auditability, and compliance with commercial and regulatory requirements.

### **Comprehensive Component-Level Quality Tracking**

Component Analysis, our specialized and fully configurable module for quality tracking, supports the rigorous monitoring and management of product quality across pipeline operations. Users can capture detailed component sample data with the flexibility to define and configure the components that need to be tracked, such as hydrocarbons, additives, or other chemicals, based on operational or regulatory requirements. Our software also supports the recording of off-spec values, including critical quality indicators like hydrogen sulfide (H<sub>2</sub>S), mercaptans, sulfur, and other contaminants that may impact product integrity or compliance.

Our Integrated Lab Analysis module captures detailed component data and off-spec values, enabling association with transactions for precise quantity tracking and quality reporting. Lab results can be entered into the system through multiple channels, offering operational flexibility. Users may manually input data, upload results via Microsoft Excel spreadsheets, or leverage system integrations to automatically ingest lab data from third party systems. Each lab result is time-stamped and maintained with a complete audit trail, ensuring traceability and accountability for all quality-related data entries.

This connection between quality data and operational transactions supports more accurate reporting and informed decision making. Tracking inventory at the component level offers insights into both the quality and quantity of stored products over time. This comprehensive approach to quality tracking ensures that pipeline operators can maintain high standards of product integrity, meet regulatory obligations, and respond proactively to any deviations in product specifications.

Emerson's scheduling and order-to-cash solutions tightly integrate with one another to provide users with actionable insights for better decision making and minimal rework.

**Increase Customer Satisfaction**

DeltaV O2CManager Software for Liquids Pipelines includes a modern, enterprise-grade self-service portal that streamlines interactions between shippers and pipeline operators. Shippers can independently submit nominations, access real-time ticket and inventory data, download reports, and retrieve invoices all from this centralized interface. Providing timely access to accurate operational and financial information builds trust and improves customer satisfaction, resulting in repeated customers and stronger relationships.

By automating critical processes such as nomination entry, ticket entry, and product quality tracking, DeltaV O2CManager Software for Liquids Pipelines reduces manual intervention and improves data accuracy. In return, operations benefit from faster response times, better inventory and charge management, and greater accountability across the pipeline value chain.

DeltaV O2CManager Software for Liquids Pipelines makes complex workflows easier, cutting down on errors and increasing confidence among all stakeholders. By combining transparency across operations with optimal commercial performance, our software's end-to-end design and built-in automation helps pipeline operators deliver a better customer experience while staying fully in control of their business processes.

**Take Control of Your Inventory**

Take control of inventory reconciliation with our Inventory Management module that enables highly accurate product volume tracking throughout the pipeline network. The module facilitates the capture of both book inventory and actual physical inventory, including line fill volumes across individual pipeline segments. Our software reconciles between recorded book values and physically measured quantities at the end of each accounting cycle, ensuring financial accuracy. Accountants can identify and analyze any discrepancies, such as gains or losses, and make informed decisions regarding quantity allocations.



Figure 2: See nominations statuses at a glance.

Product Transfer Order (PTO) is a feature of our Inventory Management module. PTO empowers users to manage and document custody transfers of products at any designated location within the pipeline or terminal infrastructure. The software also includes specialized functionality for monitoring and managing volume discrepancies that may occur during pipeline movements due to factors such as evaporation, interface mixing, or measurement variances. These discrepancies are also known as tender loss.

DeltaV O2CManager Software for Liquids Pipelines supports flexible and detailed inventory reporting, allowing users to view inventory positions by product, customer, and location. Setting up the location hierarchy in the software provides users with the ability to roll-up the inventory to a higher location instead of tracking it at a lower location.

The Inventory Management module manages multi-customer environments and bulk product movements with precision while accommodating various units of measure, including mass, volume, and British thermal units (BTUs), to ensure consistency and accuracy in inventory calculations.

The module also provides the capability to formally close inventory books at the end of each cycle and manage prior period adjustments (PPAs) to ensure that all changes are properly documented and auditable.

**Administer Contracts & Tariffs Efficiently**

Define, track, and administer a wide range of contractual agreements with precision and flexibility using the enhanced Customer Contract Management feature within DeltaV O2CManager Software for Liquids Pipelines. Contracts are primarily categorized into throughput-based charges directly tied to the physical movement of product through the pipeline and non-throughput charges for services rendered. Throughput charges require proactive management to ensure accurate billing is based on actual volumes transported whereas non-throughput charges, such as administrative support, testing, or other operational services outside of product movement, are efficiently generated through the system's integrated service request function. DeltaV O2CManager Software for Liquids Pipelines ensure nominations and transactions align with contractual terms and tariff rules and improves operational efficiency by reducing manual errors.

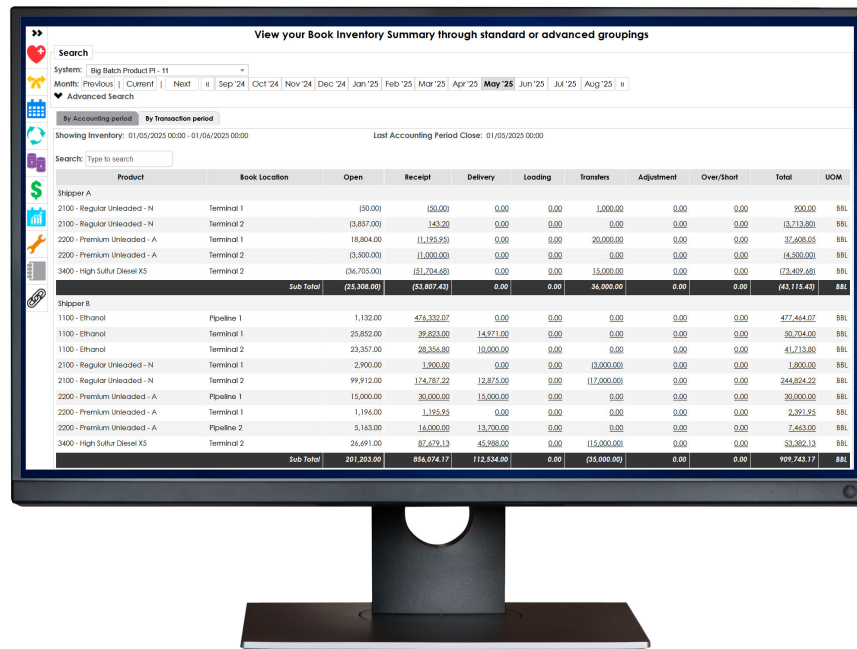


Figure 3: View inventory management by accounting period or by transaction period.

Our software includes a powerful escalation feature that enables users to adjust contract charges automatically or manually. Escalations can be configured based on predefined percentages, ensuring that pricing remains aligned with market conditions, inflation, or contractual terms over time. The software also has a Tariff Maintenance module that enables operators to capture and manage pipeline tariffs with ease. This module ensures that tariffs are accurately applied to product movements to facilitate transparent and consistent charge generation.

DeltaV O2CManager Software also fully supports joint tariff calculations to manage collaborative pricing structures offered by multiple pipeline operators. The software provides tools for seamless shipper billing and detailed operator accounting, including functionality for administering Joint Tariff Ownership to ensure that revenue sharing and cost allocation among participating operators is managed with clarity and accountability.

**Expedite Accurate Invoicing**

Automate the end-to-end process of charge creation associated with the movement of liquids products throughout the pipeline infrastructure. DeltaV O2CManager Software for Liquids Pipelines intelligently generates charges for any type of product movement, ensuring accurate and timely billing for all transportation-related activities. The software also supports the creation of service request charges that are applied to operational activities not directly tied to the physical movement of products, such as loading charges, security charges, or other ancillary services.

DeltaV O2CManager Software for Liquids Pipelines accurately assesses and applies charges per the quality of the product being transported, based on measurable parameters such as sulfur content, API gravity, product density, and other factors. This step ensures that any deviation from expected product specifications is appropriately accounted for in the billing process. Users also have the flexibility to manually create or adjust charges.

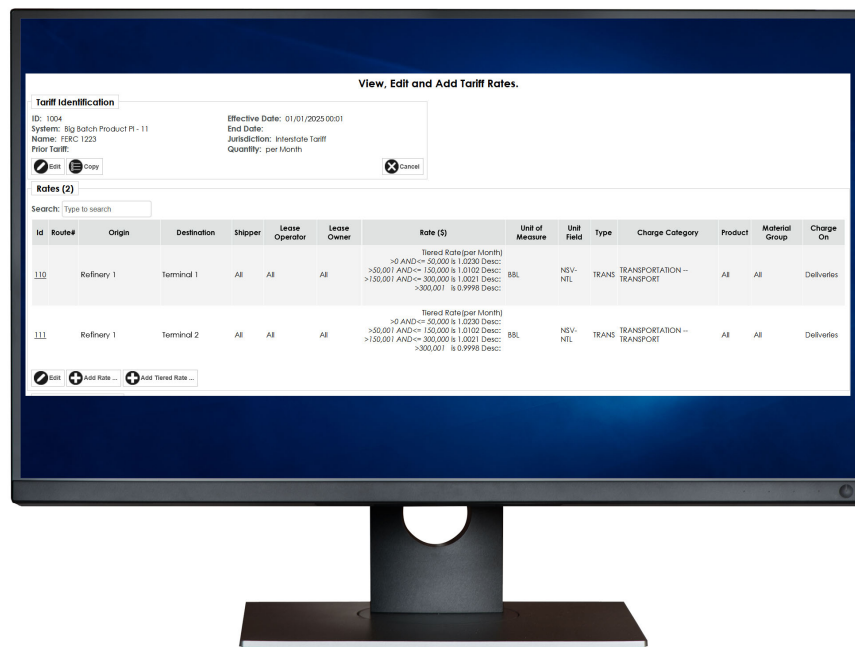


Figure 4: View, edit, add, and manage tariff rates for each shipper in a centralized location.

Our software supports the application of charges based on contractual throughput or revenue commitments, ensuring compliance with commercial agreements and protecting revenue integrity by addressing shortfalls or deficiencies in shipper performance relative to agreed-upon volumes. Users can also define custom charge groupings to enhance operational efficiency and financial control. Related charges can be organized into logical sets for streamlined review and approval. Once approved, these charge batches can be used to generate invoices that are formatted and structured for seamless integration with ERP systems through standardized interface mechanisms.

### Automate Reporting and Compliance

Make better decisions and improve operational planning using detailed reporting and analytics. Users can view, download, and send report packages to all stakeholders, including shippers and management, while maintaining compliance with local rules and government regulations. DeltaV O2CManager Software for Liquids Pipelines relies on API standards in all of measurement calculations, ensuring uniformity and consistency. Our software acts as a centralized information repository for pipelines, ensuring data is well organized and sanitized for daily use while being easily accessible during an audit. The software provides operators with a comprehensive and reliable paper trail for audits that ensures better traceability of transactions. Customizable reports from operational, financial, or compliance dashboards can be sent on demand or automatically at the end of every day or at another specified period. DeltaV O2CManager Software for Liquids Pipelines complies with system and organizational control parameters for security, availability, system integrity, and confidentiality of data.

### Efficiently Manage Both Batch and Common Stream Pipelines

Pipeline operations either follow Batch mode with each shipper’s product remaining isolated throughout transport or Common Stream mode that facilitates the co-mingling of products during transit, resulting in a blended stream. DeltaV O2CManager Software for Liquids Pipelines offers a comprehensive suite of features designed to support both modes of transport with precision and flexibility. Our software manages every step of the process, from nomination handling and scheduling to ticketing and allocation.

DeltaV O2CManager Software for Liquids Pipelines seamlessly manages multiple asset types operating in Batch mode, Common Stream mode, or Fungible mode within a single instance of the software. Pipeline operators and shippers can streamline workflows, reduce system fragmentation, and maintain consistency across diverse transportation models without compromising on control or visibility using our robust and scalable software.

### Optimize Batch Operations

Manage the complex logistics of transporting products in discrete batches and ensure accurate and precise volume tracking across all pipeline segments with DeltaV O2CManager Software for Liquids Pipelines. Volumes nominated by shippers are efficiently captured by the software and form the foundation for downstream scheduling and planning. These nominations are converted into detailed batches by integrating DeltaV O2CManager Software for Liquids Pipelines with our DeltaV SchedulingManager Software for Liquids Pipelines.

Charge Summary							
Search: <input type="text"/>							
SUMMARY							
SYSTEM	CHARGE LOCATION	ORIGIN	LOCATION	PRODUCT	TYPE	CHARGE QUANTITY	TOTAL
<b>Transaction Period: 08/01/2025 - 09/01/2025</b>							
Big Fun Product PI - 12		Location A	Terminal A	2100 - Regular Unleaded - N	LOADING	19,995.00	\$2,099.48
					TRANSMIX	19,995.00	\$199.95
					Charge Associated Tariff 1	19,995.00	\$31,794.05
					STORAGE	19,995.00	\$1,999.50
					SECURITY SURCHARGE	19,995.00	\$5,798.55
						<b>Sub Total</b>	<b>99,975.00</b>
						<b>TAX TOTAL</b>	<b>\$41,891.52</b>
						<b>INVOICE TOTAL</b>	<b>99,975.00</b>
							<b>\$41,891.52</b>

Figure 5: Invoice for multiple charge types, such as throughput or storage.

The integration of our software streamlines the scheduling process by enabling operators to convert shipper nominations into detailed batches. These batch plans can be retrieved by DeltaV O2CManager Software for Liquids Pipelines through the robust interface, ensuring smooth data flow and operational continuity. Once batches are in motion, our software captures batch tickets at both receipt and delivery points, allowing for accurate tracking and reconciliation of product volumes.

Users can resolve any discrepancies by comparing receipt and delivery batch tickets with the software's over-short reconciliation capability to ensure inventory records remain accurate and trustworthy. DeltaV O2CManager Software for Liquids Pipelines will automatically update shipper inventory when batch tickets are actualized or booked, reflecting the true movement and delivery of the product. Our end-to-end batch management grants pipeline operators greater control, transparency, and efficiency in handling batch-based operations.

## **Accurately Track Common Stream (Co-Mingled) Products**

In contrast to Batch mode, Common Stream mode supports the transportation of co-mingled products, such as crude oil, through a shared pipeline system. This model applies when the product type is consistent across shipments, though quality or grade may vary between shippers. Multiple shippers can inject their volumes of product at strategically located ingress points. The co-mingled products are transported through the pipeline and delivered to one or more egress points as defined by logistical or commercial agreements.

DeltaV O2CManager Software for Liquids Pipelines offers our APS module to track and account for product volumes. Leveraging sophisticated algorithms, the module allocates multiple tickets across multiple nominations based on a variety of factors, including shipper priority, nomination volume, and other business rules to ensure that distribution of tickets is both accurate and aligned with contractual obligations.

Our software also supports the concept of Leases and Lease Shipper Interests during the allocation process. These allow a more nuanced representation of ownership and entitlement across joint ventures or shared production assets.

## **Monitor Product Quality & Loss Allowance**

Product quality is a key commercial factor that affects value, equity, and the operational integrity of a pipeline. Variations in properties such as density, sulfur content, and other chemical characteristics from different shippers can impact the overall blend and downstream usability. The Quality Bank feature in DeltaV O2CManager Software for Liquids Pipelines ensures fair compensation for shippers based on the relative quality of the product they contribute to the pipeline. Operators can accurately measure incoming product quality and apply adjustments, either monetary or volumetric, based on the product quality added to the common stream. This promotes fairness, transparency, and equitable treatment across all stakeholders.

Our Loss Allowance feature complements the Quality Bank by enabling operators to monitor, reconcile, and manage in-transit product losses. After reconciliation, losses can be accurately tracked and allocated, supporting accountability and operational integrity. Together, these features provide a comprehensive, data-driven solution for managing the complexities of liquid hydrocarbon logistics in a multi-shipper environment.

## Agile Software Solutions for an Evolving Industry

Modernize complex processes and systems to increase throughput reliability, enhance safety, and maximize asset utilization, including LNG. Operators who adopt modern, integrated software solutions that automate complex tasks and provide a holistic view across the value chain will break down silos and have a competitive advantage. Integrating DeltaV O2CManager Software for Liquids Pipelines with DeltaV PipelineManager™ Software Suite, DeltaV PipelineStudio™ Software, and DeltaV SchedulingManager Software for Liquids Pipelines delivers a unified view of the entire order-to-cash process, providing you real-time visibility, improved efficiency, and empowers data-driven decisions to stay competitive and profitable in the evolving energy landscape. Our approach enables organizations to meet growing energy demands while maintaining safety standards, product quality, and profitability.



**Extract the maximum value from your technology investments while digitally transforming your enterprise and order-to-cash processes.**

#### North America and Latin America

Global Headquarters  
Emerson  
Energy and Transportation Solutions  
6005 Rogerdale Road  
Houston, TX, USA 77072  
T: +1 281 879 2699

#### Europe

Emerson  
Energy and Transportation Solutions  
Unit 1, Waterfront Business Park  
Dudley Road, Brierley Hill  
Dudley, UK DY5 1LX  
T: +44 1384 487200

#### Middle East and Africa

Emerson  
Energy and Transportation Solutions  
Emerson FZE  
PO Box 17033  
Jebel Ali Free Zone - South 2  
Dubai, UAE  
T: +971 4 8118100

#### Asia Pacific

Emerson  
Energy and Transportation Solutions  
1 Panda Crescent  
Singapore 128461  
T: +65 6777 8211

Visit us online at [Emerson.com/EnergyLogistics](https://www.emerson.com/EnergyLogistics)



Emerson Industrial Software

Energy and Transportation Solutions

©2026, Emerson. All rights reserved.

The Emerson logo is a trademark and service mark of Emerson Electric Co. All other marks are the property of their respective owners.

The contents of this publication are presented for informational purposes only, and while diligent efforts were made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available on request. We reserve the right to modify or improve the designs or specifications of our products at any time without notice.



**Go Boldly™**