



Discover how you can boost your terminal operations and increase efficiency of product movements with the Tload terminal automation solution.

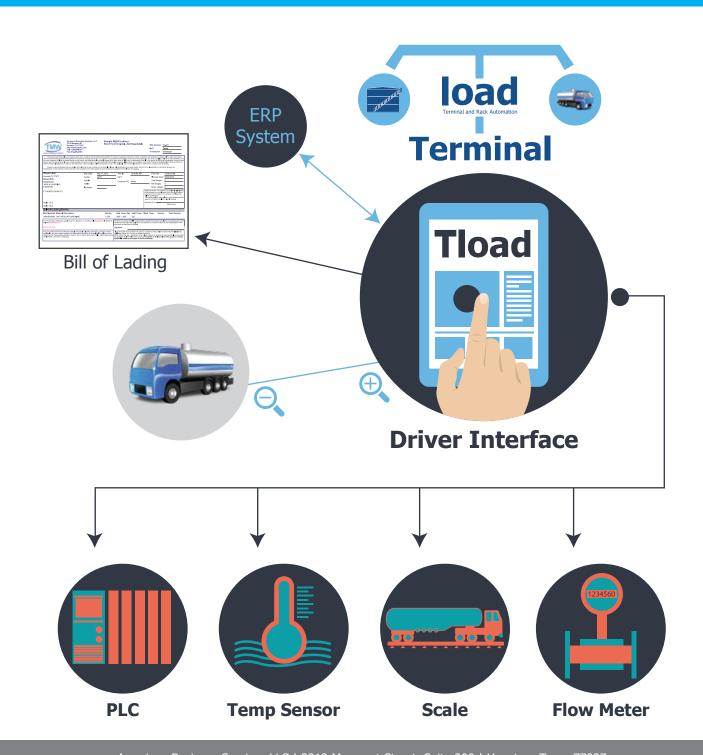
# Running a bulk liquid or solids terminal is a very challenging task, the following are just some of challenges facing today's terminal operators:

- Wrongly executed transactions (Bills-of-Lading).
- The ability to reverse and rebook transactions.
- Faster communication with the ERP system.
- Reducing the complexity of loading process and move to unmanned loading.
- Automate the blending process and increase the recipes.
- Reduce manual effort, waste and lost product.
- Increase safety during loading and product movements.
- Control carrier access and verify carrier insurance status.
- The ability to check allocations and credit at the time of loading.
- Automate the permissive inputs prior to loading like ground, equipment condition etc.
- Handle multiple shippers at the same physical terminal.
- Handle planned and unplanned transactions.
- Accurate tank inventory levels



Tload is our latest state of the art in terminal and rack automation technology designed to handle all challenges facing today's terminal operators.

Tload is used in any terminal or load rack in order to automate and track the movement of any product using any mode of transportation (truck, rail, pipeline etc. In additional <u>Tload provides access control, carrier insurance tracking</u> and tank gauging.





If you are a terminal owner or operator then Tload is the perfect solutions for all of your terminal and rack automation needs, no matter the size of you operations.

#### Tload is used to load and manage any product stored at a loading facility I like:

- Refined products
- Crude
- Chemicals and other bulk liquids
- Asphalt
- Mining oars, coal, sulfur and other bulk solids
- Agricultural bulk products

Tload utilizes the latest touch screen technology to provide a user friendly interface that can be used by drivers and terminal loaders. The interface is customizable to suit your business process at the individual terminal. The Tload hardware (touch screen station) is installed at the load rack and wired into existing automation infrastructure.

#### Tload is configured to suite your needs for each terminals in terms of the number of:

- Load racks and load arms
- Loading process
- Recipes
- Connection to meters, scales, RTDs, PLCs etc
- Permissives









### Tload supports the following movement scenariosat terminal facilities, including:

- Outbound
- Inbound
- Returns

## Terminaling and throughput is also supported and governed by the shipper. All the above scenarios can be executed in a number of ways:

- Unplanned loading
- Planned loading (Order Based Loading),
- Deal Based Loading,

where driver picks customer and product. where driver types an order number. where driver types a deal number.

In a planned transaction, the driver/loader enters a planned order number (which is previously created and approved) and the loading occurs with reference to the planned order. In an unplanned transaction, the driver picks the customer, product etc from a drop down on touch screen station.

Tload terminal can also incorporate driver access cards which can provide transaction information to the load rack like carrier info, deal number, driver info etc. The type of information supplied by the access cards can be configured to suite your business needs.

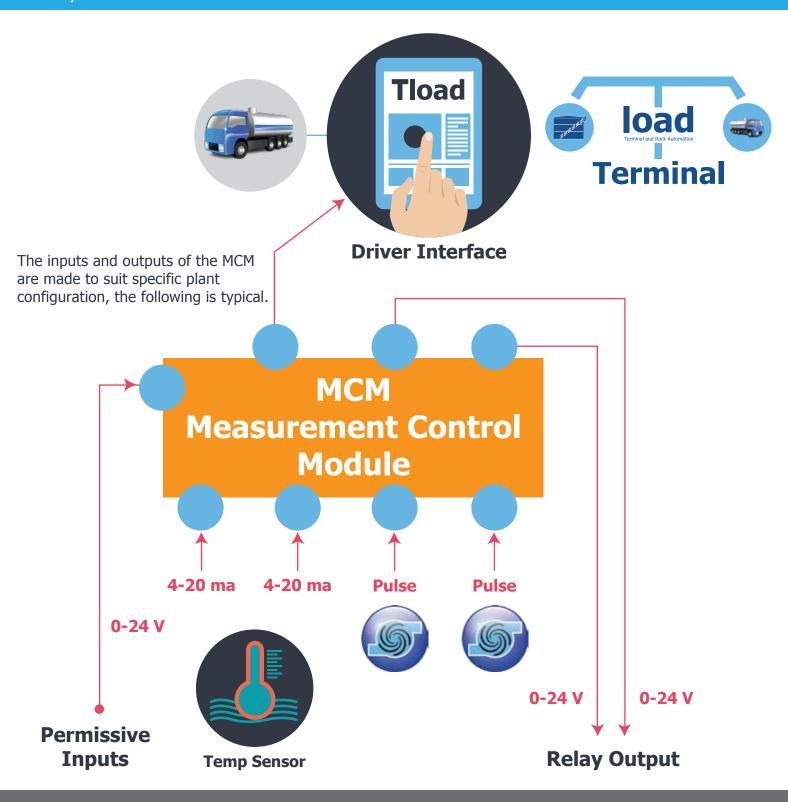






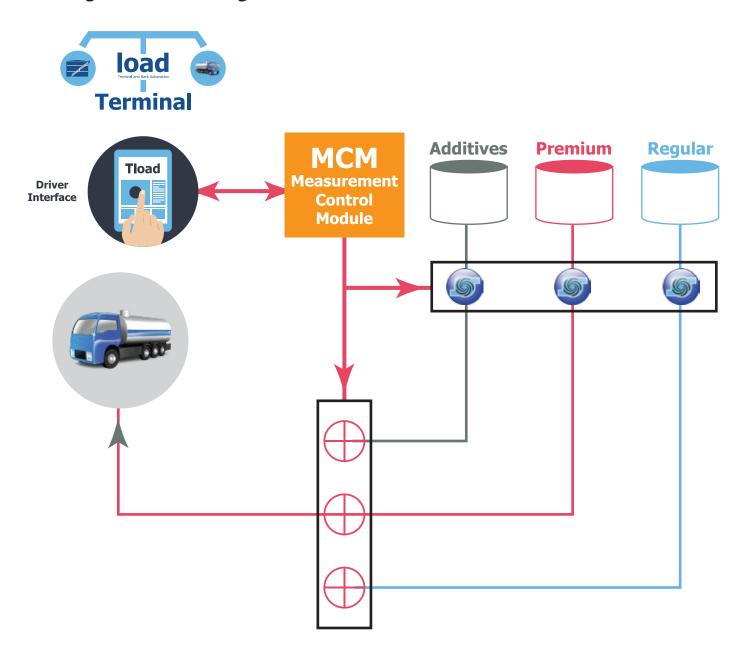


The hear of the Tload is our MCM (Measurement Control Module), it is programmable microprocessor that is able to communicate to any hardware like meters, RTDs, PLCs, scales, values etc...





The MCM is used to control the loading process at load arm. In the following illustrates as gasoline blending.



The MCM is wired to existing control wiring at the load rack in order to perform the tasks of measuring and controlling the loading process. MCM will blend into your existing automation environment and can talk to any hardware.



## Tload communicates to any ERP system in number of ways: webservices, REST, FTP etc.

With regards to SAP Tload offers seamless integration using SAP certified components built inside SAP that enables total management of terminal from within SAP. This approach has the following benefits:

- Eliminate the need to separate code for products, customers, carriers in the local automation system.
- Expose breadth of SAP system to Tload touch screen (driver and loader) in order to perform functions like credit check.

#### Tload can be deployed in 2 ways:

- Cloud Hosted solution
- Local server install

#### **Key Features:**

- Customizable driver/loader touch screen interface
- Reverse, rebooks and returns
- Credit checks
- Allocation checks
- Flexible reports, for example loading transit times, tank inventory levels
- Integration with SAP is delivered using SAP certified components
- Carrier Insurance status

