



## ACCELLA

- managing the flows

Accella is a module-based software offering unique functionality for automation, operation and administration for petroleum terminals and oil distribution. Accella can be configured for individual terminals as well as network-based solutions for the central operation of regional, national and global terminal chains.

Based on in-dept knowledge of the value-chain, we offer scalable systems and services with documented increase of efficiency, and reduced cost of operation. In today's market where the trends show tough margins and hard competition, it is essential for the management to have web-based access to real-time information from Accella.

## Accella//LOAD – Loading module (truck, rail, ship)

### FEATURES

- OIML R 117 approved
- Standard hardware
- Open software solutions
- Flexible
- Scalable
- Configurable
- User-friendly

#### General

PetroOnline has delivered automated truck loading systems for several decades and has a well reputable system. Accella//LOAD module is a PLC based loading control system based on open solutions and standard components. Figure 1 under shows the basic layout of the system:

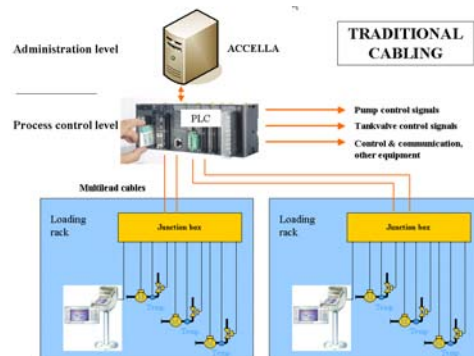


Figure 1: Accella loading system, traditional

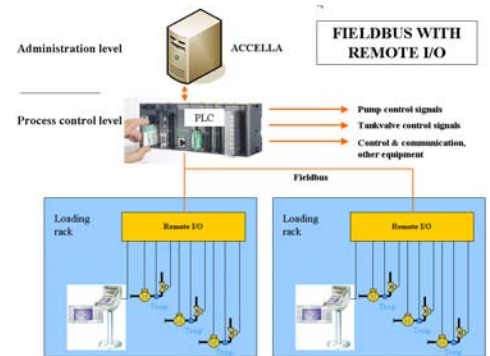


Figure 2: Accella loading system, fieldbus variant

Accella application software is a web server system, where the server can be centralized and the clients can be any PC on the LAN.

By use of remote I/O's and fieldbus for communication, a cable saving solution is achieved. The system accepts different fieldbus standards (Profibus, Foundation Fieldbus) and also Ethernet (TCP/IP) for communication between PLC and remote I/O, see figure 2.

#### Easy and flexible

Accella//LOAD has all the functionality required for an automated loading system and among the many benefits within the system are:

- Approved according to OIML regulations (R 117)
- Configurable
- Scalable; ideal for large terminals as well as small
- All hardware components are standard
- All software based on open, standardised solutions
- Accella//LOAD can operate all variations of loading control valve actuators (analogue 4-20mA, media controlled, valves with solenoids, fieldbus based actuators and so on)
- Supports LPG/LNG loading
- Supports loadings using weigh bridges; online weighing or weighing before and after loading
- Maximum credit volume for customers
- Advanced functions for handling customers, trucks, drivers
- Advanced functions for handling products and blending of products
- Together with Accella//ADDIT module complete control of additive injection incl. dyeing

# Accella//LOAD – Loading module (truck, rail, ship)

## Master PLC program

The PLC have a standard master program. No need for software changes in the PLC for new installations/deliveries. Only I/O adjustment is required.

## Advanced configuration

The loading system on the terminal/depot is configured using easy, user-friendly configuration procedures. The configuration could also be graphically presented. Changes in the configuration are easily done.

## Examples of configuration functions:

1. Implementation of a new loading spot
2. Changes in the driver dialogue on the driver's terminal; individually for each company or for each driver's terminal
3. Language selection for dialogue on the driver's terminal
4. Add, delete or edit a loading route, for instance a new pump or a new tank
5. Programming of ID cards
6. A stock product can have different sales product names for different oil companies
7. Blending of products can be configured; both in-line blending and batch blending
8. Accella//LOAD can be configured for loadings to trucks, ships or trains
9. Flexible and advanced reporting facilities using Accella's report module

## Driver's terminal

Different kind of driver's terminal is supported, but our most commonly used terminal is a terminal (PC) from Stahl, in stainless steel and with 15" colour screen. The figure under shows the layout of the terminal and a specially designed stand for the terminal:



Figure 3: Driver's terminal with stand

- ◆ **Ex-Certified Panel PC / Open HMI**
  - ☛ ATEX; Zone 1, 21, 2 and 22. DNV, GOST-R, UL, UL-Br, others on request.
- ◆ **Extended temperature range**
  - ☛ Standard: -20°C up to +50°C
  - ☛ Option: -30°C until -40°C
- ◆ **Panel-mounting device**
  - ☛ High Brightness Touch Screen (analog Res.)
  - ☛ Long Life 15 Inch Screen; 50.000 Hours
  - ☛ Serial 2x RS232/422/485, Ethernet Tx or Rx
  - ☛ USB; 2x Ex- i and 2x Ex-e
- ◆ **Approved Technology**
  - ☛ Pentium M Processor 1,6 Ghz.
  - ☛ 1 GB RAM, 2 up to 32 GB Flash Memory
- ◆ **Suitable for Tank Farm application**
  - ☛ Rough environments (vibration, EMC)
  - ☛ No rotating parts; No Fan, No Hard Disc