# 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-depth 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 management to have web-based access to real-time information from **Accella**.

# Accella//PLC & Field Instrumentation

## FEATURES

Standard hardware & components

Flexible & scalable

Open communication standards

**Accella Process Control Level** is based on advanced **PLC** technology and is fully configurable from Accella's application program (Administration level). No PLC programming is required, even on site.

The PLC system used for Accella Process Control is Omron. It is modular and scalable and is built up according to the customer's demands for functionality and redundancy. The Accella PLC's open, flexible and modular design enables it to easily handle signal input and communication from equipment & instrumentation used in terminal automation.
The Accella PLC system can handle standard communication solutions, including Profibus, Ethernet with TCP/IP, Device Net and OPC.

Decentralized solutions are also available through use of remote I/O's, even in hazardous areas.
Overall, the Accella PLC system provides a cost effective solution that is based on **standard** hardware product.

The Accella TAS system is typically delivered with driver's terminals, as described on the following page, and an optional separate ID system. Accella can interface to all other **field equipment & instrumentation**, such as temperature sensors, flowmeters, additive injectors, pumps, valves, etc. It is the customer's choice to supply these components or to have them included in the TAS delivery according to his description.
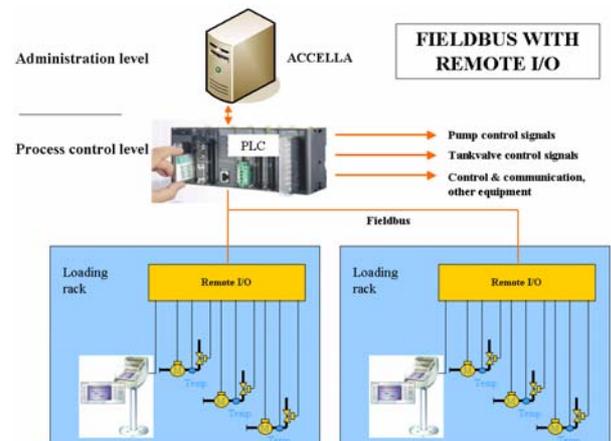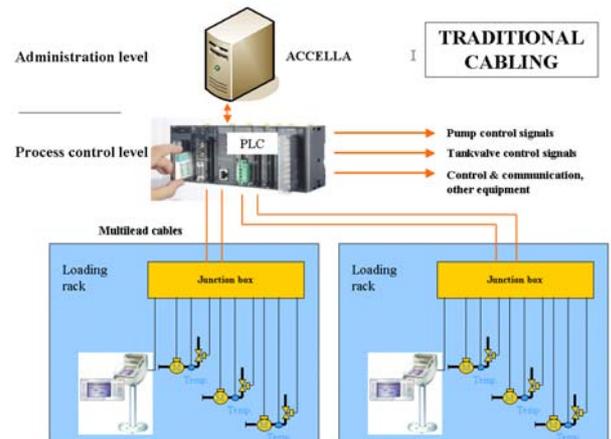


Omron PLC, model CJ1

The figures on the right show the difference between using traditional cabling or fieldbus and remote I/O's. As remote I/O system, we have used equipment from CEAG (Cooper Crouse-Hindes).



Remote I/O from CEAG







*- oil terminal automation since 1976*

# Accella//PLC & Field Instrumentation

## Configuration

The PLC has a standard Accella master program and no software changes are required in the PLC for new installations/deliveries, only signal assignment in the PLC I/O.

The terminal/depot automation system is configured using easy, user-friendly configuration procedures, which may be presented graphically. 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. Add, delete or edit a loading route, for instance, a new pump or a new tank
4. Programming of ID cards
5. A stock product can have different sales product names for different oil companies
6. Blending of products can be configured; both in-line blending and batch blending
7. Flexible and advanced reporting facilities using Accella's report module, Accella//REP

## Driver's Terminal

Normally Accella is delivered with a driver's interface based on a display terminal from Stahl, see technical data under. The terminal is EEx classified for use in zone 1. Protection class IP65.

The terminal can be delivered with a stand, which can be rotated and tipped for better working comfort. The picture below shows the terminal front and also installed in a stand.

Due to the flexibility and communication possibilities in the Accella PLC system, other terminal types can be delivered as an option.



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 Fx
  - ☞ 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