



*A million liters a day are moved through the tank facilities.*

*Everything under control with zenon*

## Filling liquid fuels safely

A million liters of different fuels flow through the Landquart Tank Plant of Landi Graubünden AG daily. The supply comes in long block trains with 20 tank wagons, is bunkered and redistributed to road tankers. A good plant overview, flexibility and high awareness of safety characterize the daily operations. When the existing plant was to be expanded in 2010 to become more future-proof, SVA Automation AG, which has experience in the field of road tankers, was commissioned with the conversion.

“The tank facilities at Landquart are now technically up to date with this new control system and there are also more possibilities for monitoring and operation.”

SEPP FÖHN, CEO OF LANDI GRAUBÜNDEN AG

SVA Automation AG has many years of experience with the automation of tank facilities and provides expertise in various technologies for HMI and control systems. Landi Graubünden AG asked them to equip the Landquart Tank Plant for the future.

Marc Annaheim, Project Manager at SVA Automation AG: “The existing Siemens S5 technology with a mimic diagram panel was to be replaced with future-proof technology with a long system life, which could then be expanded easily. The main focus was modernizing the control technology, ensuring the highest possible availability of equipment and providing a clear display of the flow directions to the fuel lines.” To sum up, the new system needed to be a central information and control system to ensure efficient operation for the group. As a COPA-DATA partner, SVA Automation AG has many resources: from the flexible and open software, zenon, through to rapid, expert support.

### NEW ZENON CONTROL SYSTEM: REDUNDANCY INCLUDED

SVA Automation AG combines a Siemens S7 control unit with the zenon control system from COPA-DATA. The pre-existing application was integrated into the control system by means of an HTML window without any problems. A central task was to guarantee the safety of the system from failure. To this end, zenon’s already integrated redundancy tools were configured accordingly. zenon makes it possible to launch several projects in different roles on one computer. So a computer can be used as a project server, as a further standby server and as a client. This means that very reliable systems can be configured without major hardware expense.

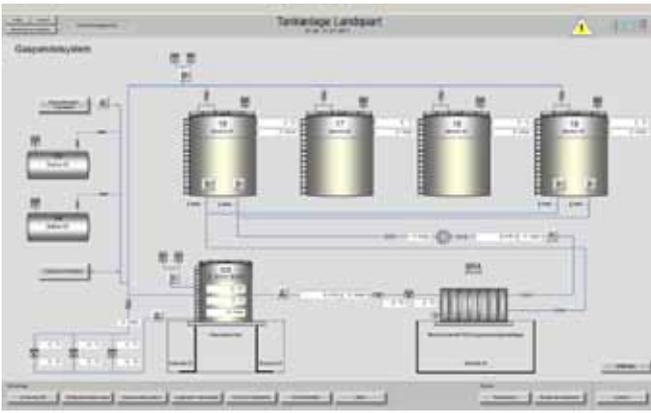
### CALL IN THE EVENT OF AN ALARM

It is important to react particularly quickly if problems occur in the tank storage facilities. The sending of alarms to operating staff is therefore fully automatic. The zenon Message Control module makes many different types of alarms possible. “Text-to-speech” is used in the tank facility. If a certain limit value is exceeded, the alarm is raised by means of a telephone. The person who is called and the time at which they are called can be pre-defined. If this person cannot be reached, the alarm message is sent to another pre-defined recipient. The message saved in the control system is then read out by zenon. The alarm can also be acknowledged via the telephone.

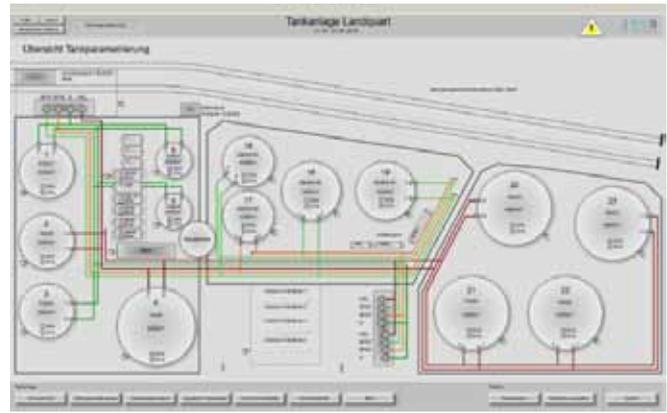
Separate remote access – strictly password-protected – is available for engineers and the system integrator. In this way, authorized persons can access the system remotely, request reports or control it, provided they have been assigned the appropriate rights.

### DIRECT CONTROL

Because zenon offers over 300 protocols and drivers, SVA Automation AG was able to connect all the peripherals directly and with redundancy. Marc Annaheim: “We communicate to the new SIMATIC S7-317PN via the zenon S7-TCP direct driver. We connected the ET200M-peripheral devices to the redundant optical-fiber ring with ProfiNet. The event memory was implemented using the Chronological Event List, which is included with the control system as standard. This way, past equipment states can be reconstructed at any time.” Furthermore, the data that is created to record system events and alarms are stored in archives



*Flow directions, pressures and temperatures are available at all times and are visible at a glance.*



*Say goodbye to programming: parameters for the control system can be set up quickly, easily and with a clear overview.*

and are available both historically and live for reports and trends. Average and maximum values are therefore reported automatically and presented graphically in the Extended Trend module.

## SVA AUTOMATION – YOUR REGIONAL PARTNER FOR ZENON INTEGRATION

SVA Automation AG, based in Gümligen near Bern is a service provider for individual automation solutions for application in industry and building services. The product range includes buildings automation, measurement, control and regulation units, heating, ventilation and air conditioning and control units for machines and tank facilities. The comprehensive range of services offers complete assistance from the concept phase, through the engineering, software creation, visualization and putting into operation through to customer training. Customers include companies from the pharmaceutical industry, the foodstuffs industry, mechanical engineering companies, equipment manufacturers and tank equipment manufacturers. For further information: [www.svaag.ch](http://www.svaag.ch)

## SATOMECH – YOUR ZENON SALES PARTNER IN SWITZERLAND

SATOMECH AG is a COPA-DATA partner and vendor of automation systems. The company, based in Cham, supports its customers in Switzerland and Liechtenstein with highly qualified support, consulting, training and a comprehensive warehouse in Switzerland. Control systems, visualization, HMI and/or IPC and network technology are some of the areas in which the Swiss company has expertise. SATOMECH AG was

founded in 1976 and has been privately owned by the Studhalter family since 2005. It has 14 employees. The Swiss company's customer base includes mechanical engineering companies, equipment manufacturers and control unit manufacturers. Further information: [www.satomech.ch](http://www.satomech.ch)

### THE TECHNOLOGY IN LANDI GRAUBÜNDEN AG'S TANK FACILITY:

- ▶ Control system: zenon from COPA-DATA
- ▶ Control unit: SIMATIC S7-317PN
- ▶ Communication: COPA-DATA S7-TCP direct driver
- ▶ Connection to ET200M peripheral devices: ProfiNet to redundant fiber-optic ring, managed switches and router with firewall
- ▶ Operating safety: zenon Redundancy
- ▶ Alarming: zenon Message Control with "text-to-speech"
- ▶ Historical data: zenon Archive Server, Extended Trend and Report Generator
- ▶ Operating system: Windows Server 2008 R2