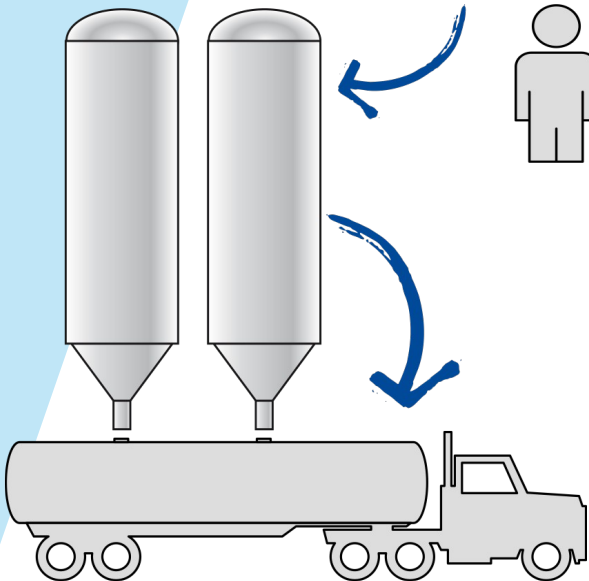
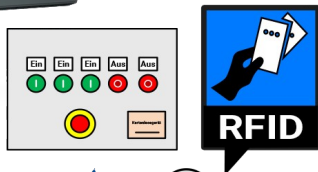
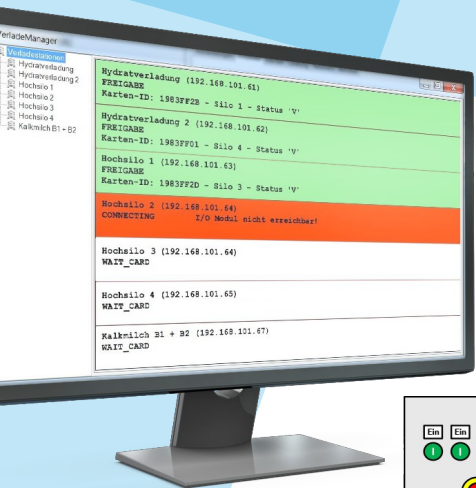


Efficient control of silo plants RFID-based - Industry 4.0 conform

A software solution for the automatic
unlocking of silo loading stations and
optimising of silo-truck loading processes



NEW GENERATION OF LOADING MANAGEMENT

XAPI XLoadingManager is a Windows-based software solution, developed by **XAPI**, to ensure the effectiveness and efficiency of logistical silo loading processes and the associated resources. The RFID technology used is based on the Industry 4.0 standard and provides the ideal solution for the constantly growing requirements in silo loading management.

PRECISE LOADING

The **XLoadingManager** enables a user to conveniently access one or more silos at a truck loading station with several silos. Using a RFID - card, the truck driver can independently load his vehicle precisely, which he inserts into the reading station of the loading station. There is no longer any need to carry keys and all users benefit from the ergonomic feature of the RFID card reader. The stored data prevents refilling at the end of the filling process.

OPTIMISE LOGISTICS PROCESS AND SECURITY OF SUPPLY - SAVE TIME AND MONEY

With the concept of the **XAPI XLoadingManager**, the dispatching of trucks is designed functionally and ergonomically completely according to a company's requirements. It offers a solution to optimise logistics processes and logistics costs as well as personnel costs and has proven itself in many logistics application areas for several years.

RFID ACCESS IDENTIFICATION - ROBUST - RELIABLE - CONVENIENT

Chip cards with RFID- transponders are used in both large and small production facilities to ensure smooth logistical processes. With the information stored on the RFID card, the truck driver can identify himself at the loading station without any language barrier and obtain a release (e.g. a silo opens). With the help of RFID technology, the entire process is well structured and monitored. Faults are easily detected and displayed in the software. It is possible to react ad hoc. The chip card in combination with the **XAPI XLoadingManager** is extremely efficient, convenient, fast, robust, reliable, saves costs and almost maintenance-free.

FUNKTIONEN

- **Convenient reading** of a user's RFID card at the remote control station of a truck loading station and fast sending to the XLoadingManager.
- **Quick authorisation check** at the station concerned as a result of **automatic release** of the corresponding silos for truck loading (signal lamp lights up green). A warning signal sounds if no activation has taken place (signal lamp lights up red).
- At the end of the filling process, write data on the issued cards **to prevent refilling**.
- **Station overview and status display:** The loading stations are displayed as a directory tree. The status of the individual connections to the stations is highlighted in colour. (Red: no connection established, white: existing connection, no card inserted yet, green: valid card in use. Loading is active).
- **Detailed information of a station:** Station name, IP address, number of the charging station and associated silos, connection status, status of inputs and outputs, as well as the card data of the inserted RFID card are displayed in detail.
- **Compact and space-saving:** The XLoadingManager is a 32 bit Windows application, executable under all Windows versions, a few kilobytes in size, consisting of an exe file. (VerladeManager.exe, xWatch-Dog.exe). It can therefore be used on low-performance and lean systems.
- **Optional use with PLC:** the XLoadingManager software can be used with the cooperation of a PLC if desired.

PURPOSE / BENEFIT

- **Automated silo loading control** with logging of access data: Information is located on the transponders and is read out.
- There is no need to hand out keys for each individual silo, **expensive key switches** in control cabinets are **no longer necessary**.
- RFID cards can be easily duplicated, written on and changed. They can be reused at any time.
- Time saving: no more searching and thus reduced loading times lead to **better resource planning** and increased goods turnover.
- **Cost savings:** through precise loading of the vehicles.
- **Easy operation** through automatic mode, even under robust conditions.
- Autonomous conveyor system completely independent of other plant/station is completely independent of other control systems.
- The **safety** and **productivity** of the plant are increased in the long term.
- **Avoidance of financial damage**, as accidental false calls can be ruled out.
- Easy installation, commissioning and operation of the **XAPI XLoadingManager** software.
- **Easy to use:** with 1-click operation, all Stations data is visible. Simple user interfaces for short training phases.
- The **lean central infrastructure** enables low hardware, maintenance, support and licensing costs.



TECHNOLOGY

- RFID-Multireader von NOAX wird über die eingebaute RS232 Schnittstelle verbunden.
- For the loading stations, a telecontrol station (W&T) with usually 12 digital inputs and outputs is used, which is plugged into the control cabinet on the top-hat rail of the loading station.
- This is connected to the industrial PC via Ethernet.
- Configuration of the W&T telecontrol station using the web interface.
- Standardised interface to PLC systems.

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