IAL
Automation und Logistik

IAL RFID-System

RFIDMS+ Identification and Data Management System

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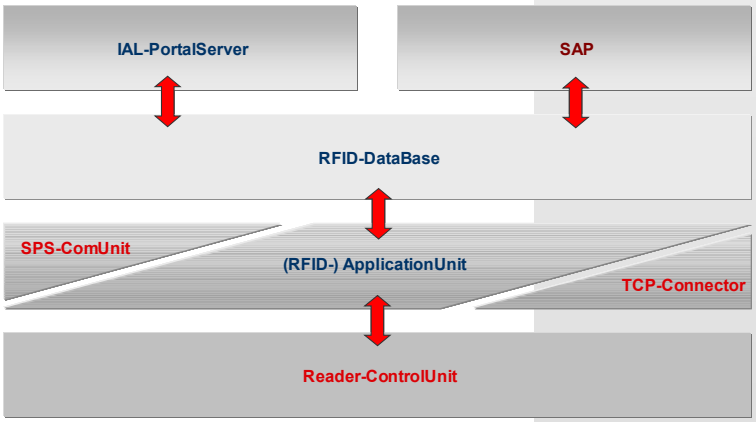
With the RFIDMS+ Identification & Data Management System, IAL provides a software product for the integration of RFID hardware components from a variety of manufacturers. The system contains universal interfaces for connection to existing customer environments.

System architecture

A central component of the system is a Client/Server application which images the desired business processes.

The modular construction of the system guarantees a high measure of flexibility with regard to customer requirements.

The system is composed of four functional layers which build on each other as shown in the diagram to the right.



Reader ControlUnit
RCU – Reader Interface – Device

The RCU is a communications module to access read/write devices made by different manufacturers (Feig, Scemtec, Sick, SamSys, ...)

ApplicationUnit
RFID Application Layer

Module for the processing and visualizing of the RCU data. The basic version contains standard operation modes to image simple RFID procedures.

We offer the option of integrating complex (customer-specific) procedures into the Application Unit.

The Application Unit can be expanded with the following interface modules:

SPS-ComUnit - SPS-Interface

Standard module for the TCP/IP communication with Siemens S7/S5 controllers.

TCP-Connector - XML TCP-Interface

Standard module for the TCP/IP communication with external applications (IAL RFID-API)

RFID-DataBase

In the standard version the RFID system is equipped with its own database, which records both the configuration and the data from the customer-specific Application Unit.

IAL Interface Components
Interface to external host systems

Optionally the DataBase can be extended with further components from the IAL portfolio, such as the IAL Portal Server or interfaces to external host systems like SAP.

RFID Software

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The **IAL RFID system** is superior because it can be implemented in a spectrum from the standard system to a customized version designed to meet individual requirements.

The number and functionality of the RFID data acquisition stations, and also the complexity of the data processing and visualizing can be flexibly adjusted to customer criteria.

Basic system

The basic IAL RFID system consists of 1 to n independent **RFID units**, in which each of the units contains the following four components:

- 1 Reader Control Unit
- 1 RFID reader
- 1 to n antennas
- 0 to m photo sensors

The RFID units are not stand alone applications, but rather are bundled into a complete RFID system consisting of 1 to n RFID units connected via Ethernet plus a supervising **Application Unit**.

The Application Unit coordinates both the activities of the RFID units and the data processing and imaging.

The third components of the basic system is the **RFID Database**. In the basic version the DataBase manages the configuration data and protocolls operational activities.

The basic version of the RFID system can be characterized as a database-oriented Client/Server application composed of n independent RCUs as Clients und the Application Unit as Server.

Extension options

As noted above, the Application Unit can be extended with two other elements:

- SPS-ComUnit for communication with Siemes S7/S5 controllers
- TCP-Connector for the communication with external applications (IAL RFID-API)

The RFID system can also be extended with other IAL components:

- IAL-PortalServer
- Interface to external Host systems (e.g.,. SAP)

Further details about the IAL RFID system are contained in the product description. If you have questions or are interested in further information, please contact one of the team members listed below.

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