SIGMA
DIGITALISIERUNG GESTALTEN

GRAIDWARE®
autoid middleware

Product description

GRAIDWARE® Basis

Version ENG 1.1
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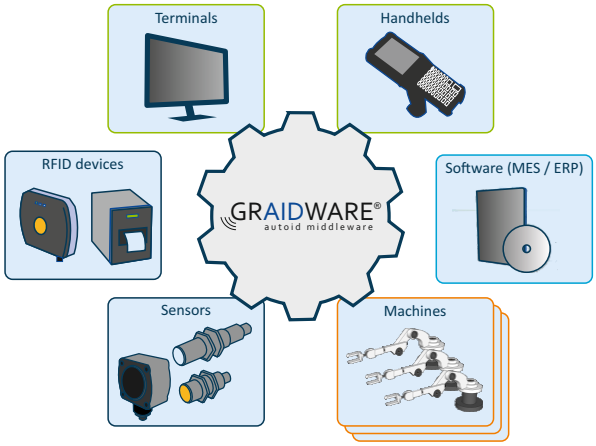
Description

GRAIDWARE® AutoID-Middleware is a general rubric covering various hardware components and business applications. Within AutoID-based processes, it is possible to identify, monitor, control and configure means of production, production steps and AutoID data. Middleware also forwards data from various AutoID techniques into superordinate business applications, such as ERP, QA or WMS systems.

GRAIDWARE® AutoID Middleware is a distributed software system. Individual components identified by function may be run, as a rule, on any Windows operating system (Windows 7 and higher).

GRAIDWARE® Basis includes all components for the basic functionality of an AutoID system. Basis is itself a fully functioning framework to connect AutoID devices and can be extended through additional components or modules or customization.



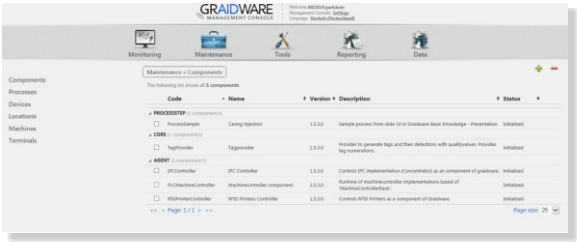
Examples of application

Transport, logistics, production and quality assurance in the automotive and auto supply industries, in the textile industry and trade, etc.

Standard components

Management console

- Graphic user interface (web application) for the administration of GRAIDWARE®
- Administration and configuration of the individual GRAIDWARE® components and interfaces
- Administration, configuration and monitoring of AutoID devices
- Administration and configuration of machines and terminals
- Administration of locations/ workplaces
- Administration of process implementations
- Standard language is English



Easy administration with management console

Core

- Interface between the administration console and GRAIDWARE® application environment
- Administers the communication among the components
- Receives run time information
- Installs and manages devices on the controllers

TagProvider

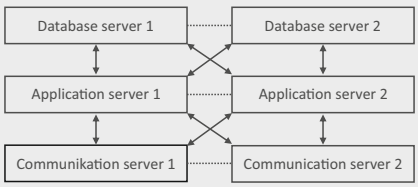
- Collection and administration of the generated transponder readings
- Number range administration
- Filtered query opportunities for transponder readings

Controller

- Various controllers (device controllers, printer controllers and machine controllers)
- Linking different AutoID devices and machines (among others, HF or UHF-RFID reading and
- writing devices or bar code readers)
- Specific command set for each device

Functions

- **High availability:** GRAIDWARE® supports high availability for software and hardware. Critical hardware (including database server) redundancy is crucial, and a sufficient number of operating systems is necessary (VM, PC, etc.). Depending on the requirements of a component, application states are mirrored via data base server or through distributed memory.



High availability with GRAIDWARE®

- **Number range administration:** this functional module enables the administration of number ranges. These ranges make it possible to generate numbers that can be used as an AutoID identification feature (RFID, 1D bar code, 2D bar codes such as data matrix and others) in the GRAIDWARE® system and have to be considered there. The number ranges generated can be edited, deleted, activated and disabled.

- **Interfaces and links to databases:** third-party systems are linked for communication with software systems (ERP system, QA system, WMS) via interfaces standardized in industry for data exchange among the IT systems (such as Euromap), which are part of the overall process control. Administration of third-party systems in terms of the interfaces is carried out within GRAIDWARE®. Database connection is an important element of GRAIDWARE® used to store data, as well as the system configuration. Microsoft SQL Server and Oracle are supported as database management systems. The database connection is administrated by each GRAIDWARE® component individually and used optionally.

- **Signal processors:** signal processors have to process data flows (primarily AutoID data) and provide simple analysis functions, such as determination of positions or plausibility checks.

Minimal system preconditions

- Operating system: Microsoft Windows server 2019, CPU Dual Core 2x 2,0 Ghz
- Mass storage DB - 30 GB free space * / App - 30 GB free **.
- Memory - 16 GB for database server / 16 GB application server
- Database: SQL Server 2019 Standard
- Web server: IST 10
- Microsoft .NET Framework version 4.8 | 6.0

Licensing

- **Standard-Edition**
  up to 5 AutoID terminals*
- **Business-Edition**
  up to 15 AutoID terminals
- **Enterprise-Edition**
  unlimited quantity of AutoID terminals

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*AutoID terminals are devices to record AutoID identifiers, such as RFID, bar code, data matrix, QR code etc. Printers with integrated RFID device are also included.

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