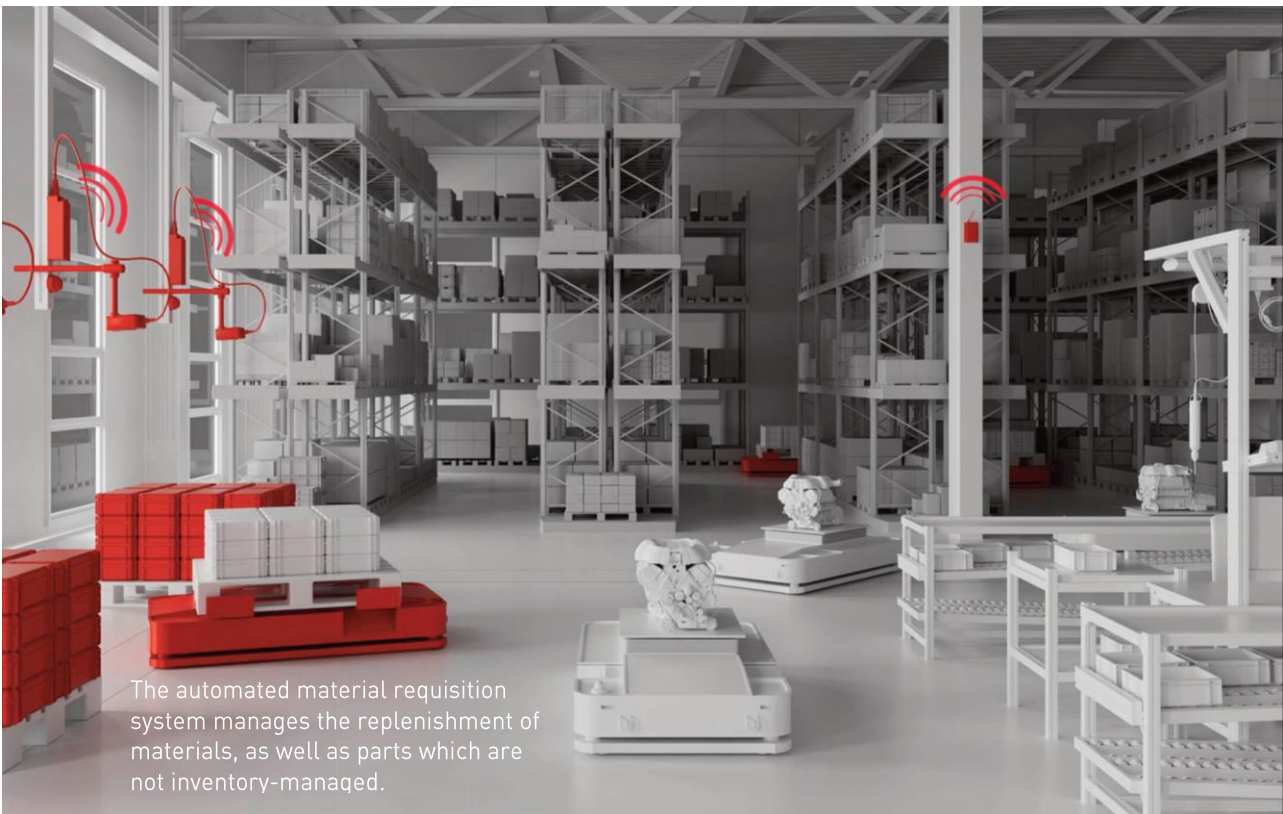
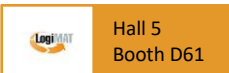
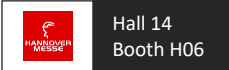


Automated material requisition system

Track stock levels in assembly and logistics processes



The automated material requisition system manages the replenishment of materials, as well as parts which are not inventory-managed.

With a wireless-based automated material requisition system, material flow becomes transparent, even for parts which are not inventory-managed. The next system from steute is ideal for this purpose. At the LogiMAT, the manufacturer will be showing how the latest next version can also perform other tasks.

Always on the move: this principle is true for in-house material flow not only regarding the goods being transported, but also and increasingly for the transport means

themselves. Automated guided vehicles (AGV) move around company warehouses, consignment areas and assembly halls. Compared to stationary conveyors, they are more flexible and can also be adapted quickly to new products or transportation requirements.

The shop floor area remains uncluttered, and transport paths can be varied. In addition, the new AGV generations no longer require

external path markers or guiding. They navigate freely and can also be trained quickly to change their routes.

Industry-compatible wireless network

Unless only the start and finish of the information flow are to be integrated in the system, such mobile applications make cabled communication unsuitable, however. In order to capture AGV data en route and in real time, for example to detect free storage and supermarket slots in materials hubs, the data must be transmitted remotely. Material flow can then be monitored down to the very last metre, while also addressing the common problem of erroneous quantities for articles not inventory-managed.

Wireless sensors map material flow

For this task, steute Leantec developed nexy, a wireless-based automated material requisition system. Different types of wireless sensors monitor material stock levels, for example in eKanban racks or materials supermarkets. When a minimum stock level is reached, or when storage slots become empty, the sensors send a corresponding signal via the Sensor Bridge interface to the IT infrastructure. In this way, bottlenecks and excess supplies can be avoided, even for articles which are not inventory-managed.

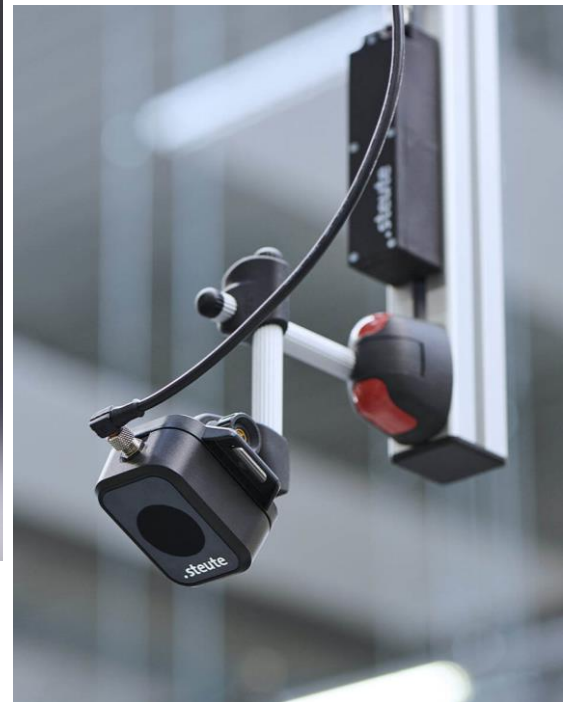
Automated replenishments

Data generated on site are sent via the Sensor Bridge to e.g. an ERP system in order to guarantee an automated continuous supply of replenishments. Alternatively, the system can communicate via different interfaces with AGV



One element of the requisition management system: laser sensors monitor e.g. containers or their fill levels.

View from above: long-range sensors detect e.g. free parking slots in materials supermarkets.



fleet managers. Trouble spots which are often critical, such as transfer points from stationary to mobile conveyors, or to mobile eKanban racks, can also be integrated and monitored. Here nexy sends the transfer data to the AGV system or conveyor in order to prevent gaps in the information flow. The wireless hardware can be quickly adapted to map new constructions, new storage layouts and any changes to the material flow.

On-premise system without own hardware

The Sensor Bridge is the heart of the system. All signals from the wireless sensors arrive here and are then presented to the target IT system or fleet manager. The latest version is easier to install and operate and will be presented at the LogiMAT. Instead of the industrial PC previously required for operations, users can now also run the Sensor Bridge on their own IT infrastructure. The Sensor Bridge and its



The nexy software can now also be operated on the customer's own hardware.

configuration can be visualised on the customer's server. This new option of a hardware-independent, docker-only version of the Sensor Bridge is interesting for companies looking for lean IT hardware with as few edge

devices as possible and correspondingly minimised administration requirements.

Additional applications now integrated

Many operators of AGV fleets use the steute nexy system for replenishing parts which are not inventory-managed, and a separate application exists for this purpose. Another popular nexy application is the monitoring of dollies, or rolling trolleys, which are similarly integrated in the replenishment process. Andon buttons for consignment, visualisation displays or stack lights can also all be integrated in this wireless-based automated requisition system.

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Images: steute Technologies GmbH & Co. KG