

Reference report

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About SIGMA

As a renowned system house group, the SIGMA Group acts as a system integrator and partner of renowned providers in the IT sector. The more than 80 employees of the group form a competent team at the locations Chemnitz and Dresden. With know-how, competence and more than 30 years of experience we offer our customers reliable and powerful IT solutions.

About our AutoID and RFID solutions

AutoID and RFID solutions for production, logistics and supply chain. Our customers appreciate us as competent, innovative partner, to accompany them from the initial problem analysis until the goal with commitment. Many years of project experience of our employees form the foundation for effective AutoID and RFID solutions for production, logistics and supply chain.

About the customer

BAUKING GmbH is one of the largest specialty building materials retailers in Germany. With 83 specialty retail locations, 45 Hagebaumarkt stores, and its headquarters in Dortmund, the company supplies customers nationwide with products and expertise in building construction, civil engineering, interior finishing, roofing, facades, and gardening and landscaping.

One of the biggest logistical challenges: Ensuring the availability of building materials across all locations.

BLE Container Tracking at BAUKING – Transparency for Transfers Between Company Locations



www.bauking.de

Initial Situation and Challenges

Not every material can be kept in stock at every location on a permanent basis. That is why material containers are transferred daily between BAUKING branches to quickly address material shortages.

However, as the number of transfers increased, so did the documentation workload.

Questions such as the following kept arising:

- Did the container actually arrive at its destination?
- Where was it unloaded?
- Why are there inventory discrepancies?
- Where are lost or missing containers?

Especially when it comes to high-quality building materials, a lack of transparency and manual accounting processes can quickly lead to high costs. At the same time, raw materials have become significantly more expensive in recent years, meaning that any loss of material has a noticeable economic impact.

The Idea

BAUKING was looking for a solution that would allow it to track containers automatically and across multiple locations

Working with the regional logistics manager, SIGMA first analyzed the existing processes directly on site. Based on this process assessment, a concept for automated container tracking was developed, and the appropriate technology was selected.

The result: An intelligent tracking system based on Bluetooth Low Energy (BLE) and the GRAIDWARE® software platform.

The solution

Each stock transfer order is assigned to a unique BLE beacon in GRAIDWARE®. The material container is then equipped with the beacon and can be automatically tracked throughout its entire transport route using the company's own trucks. The trucks are equipped with special gateways that detect the beacons in the vicinity and transmit this information, along with the truck's GPS coordinates, to GRAIDWARE®.

GPS-based location tracking provides a transparent overview of the current location of the transferred materials at all times. Transfers between locations are automatically detected and documented—without the need for manual entries by employees.

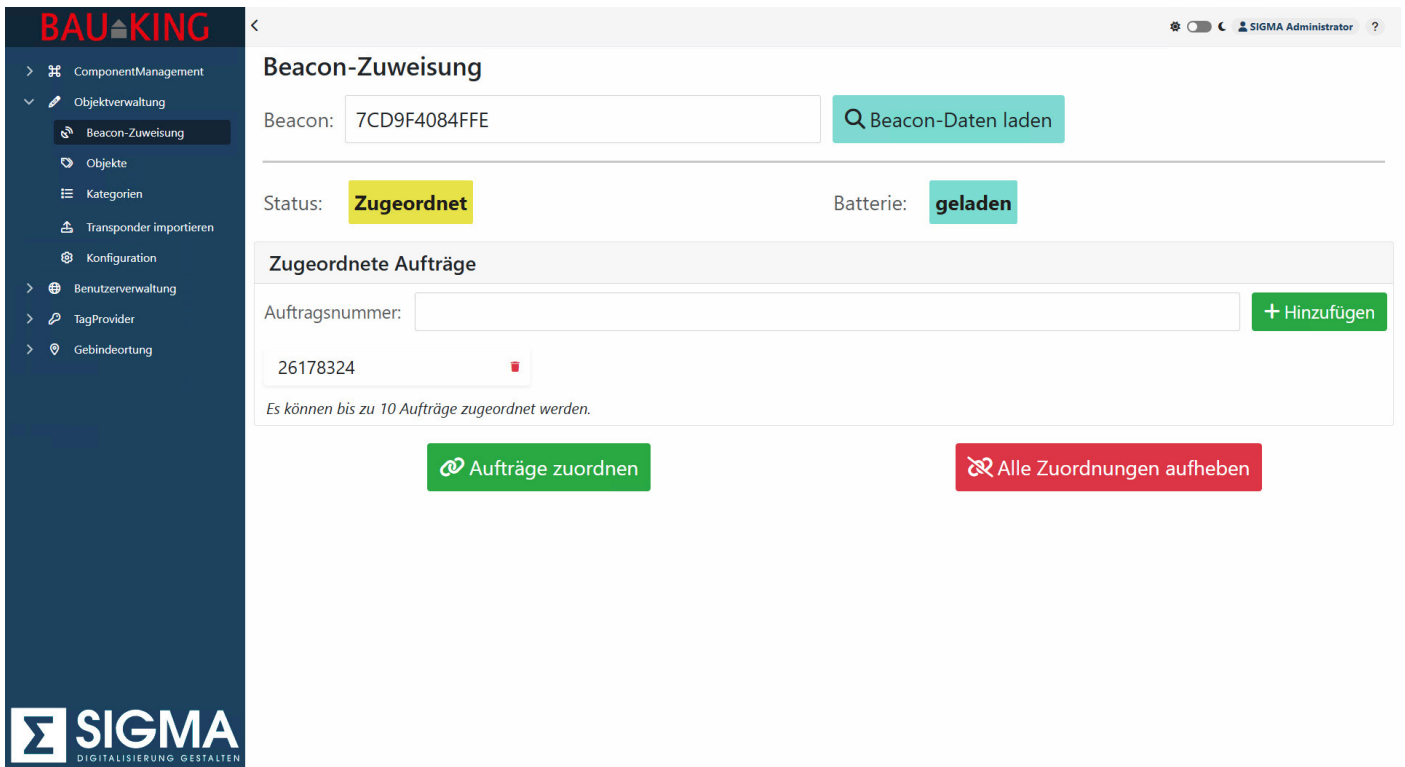
The screenshot displays the GRAIDWARE web application interface. On the left is a dark blue sidebar with the 'BAUKING' logo and a menu containing: ComponentManagement, Objektverwaltung, Benutzerverwaltung, TagProvider, Gebindeortung (selected), Bereiche konfigurieren, Gebinde-Karte, Erfassungshistorie, and Konfiguration. The main area is titled 'Gebinde-Karte' and features a filter section with input fields for 'Code', 'Erfassungsdatum von' (02.06.2026), 'Erfassungsdatum bis' (02.07.2026), and 'Auftragsnummer'. Below the filter is a map of Germany with numerous blue location markers. A legend at the bottom left indicates 'Mit Gebinden' (yellow) and 'Ohne Gebinde' (blue). On the right, a table titled 'Einträge' lists warehouse locations with corresponding colored markers and location pins.

Einträge
Bauking Amberg, Dinsldorfer Str. 1, 91823 Amberg
Bauking Attendorn, Am Eckenbach 16, 57439 Attendorn
Bauking Betzdorf, Wilhelmstr. 111, 57518 Betzdorf
Bauking Engelskirchen, Blumenhausen 3-7, 51796 Engelskirchen
Bauking Solche, Am d. Mühle 4, 51889 Solche (Levernau)
Bauking Florenberg, Johannes-Schweide-Str. 20-26, 57413 Florenberg
Bauking Lennestadt, Hundemauer 1, 57368 Lennestadt
Bauking Meinerzhagen, Am Rottland 1, 58540 Meinerzhagen
Bauking Menden, Stockmacker 3, 58758 Menden (Levernau)
Bauking Meschede, Am Schallbruch 25, 58672 Meschede

In GRAIDWARE®, all warehouse and material locations are defined as zones. Using the web application, employees can select these zones, view the associated orders, and search for a specific container. The items are clearly displayed on a digital location map, which reduces search times and increases transparency.

Beacons are assigned to the respective transport or transfer orders via the GRAIDWARE® web application using mobile scanners. In total, the solution covers tracking at more than 50 locations.

At the customer's request, the solution has been fully implemented as a cloud application. It is hosted in German data centers operated by a German provider. As a web application, GRAIDWARE® is available to all authorized BAUKING employees. Individual access rights are assigned through GRAIDWARE®'s user and rights management system.



With GRAIDWARE®, BAUKING now has:

- Automatic recording of inter-site transfers
- Transparent, real-time tracking of all tracked containers
- Significantly reduced search times
- Fewer inventory discrepancies
- Less manual documentation
- Greater process reliability in internal logistics

The result is a noticeable increase in efficiency as well as significantly greater transparency across the entire material flow.

This is what our customer says...

“With SIGMA, we have a competent partner by our side. The GRAIDWARE® software solution enables us to track our stock transfers with significantly greater transparency and provides long-term support for our logistics processes.”

Daniel Güsten, Regional Logistics Manager, BAUKING GmbH