

# 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 GRAIDWARE®

The AutoID middleware GRAIDWARE® is an intelligent abstraction layer for different hardware components and business applications. Work tools, production steps and AutoID data can be identified, monitored, controlled and configured.

## About the customer

Swissbit AG is the leading European technology company for storage products and security solutions "Made in Germany". The company's vision is a networked world in which data and identities are trustworthy at all times to ensure digital sovereignty. Swissbit's solutions are used in a wide range of industries, including industrial automation, network and communication technologies, edge computing, transportation, critical infrastructure, defense and the public sector.

## Digitalization of order picking at Swissbit



 [www.swissbit.com/en/](http://www.swissbit.com/en/)

## More precise processes thanks to digital support

Manual processes were a constant challenge at Swissbit: Products had to be counted correctly, packaging specifications precisely adhered to and every movement neatly documented. Even the smallest errors could result in delays or missing quantities. To make these processes more efficient and error-free, Swissbit opted for a digital transformation with bar-code-supported processes, visual assistance from GRAIDWARE® and direct SAP integration.

## Objective of the project

As part of the process optimization, Swissbit pursued the goal of digitizing analogue processes and making order picking more efficient.

Important requirements were:

- Avoidance of picking and counting errors thanks to digital app support
- Automated data exchange between the app and the ERP system (SAP) via barcodes
- Visualization of picking information such as quantity, product, form factor and packaging
- Ensuring the correct delivery quantities
- Digital verification of filling with the correct products
- Automatic transfer of the current quantities of goods and completion notifications to SAP

# Digitized picking process

The new digital process includes a user-guided check of filling with the correct products. The main steps are:

## 1. entry of the picking order

- The order information is scanned and extracted from the printed SAP order using barcodes or DataMatrix codes.
- The assembly order specifies whether single-batch or mixed-batch packaging is required.
- Based on this information, the products to be picked, including packing instructions, are clearly displayed.

## 2. digital support and visualization

- A specially developed web application is used to optimize order picking. This is integrated as a plug-in in the GRAIDWARE® Center, the central user interface of the software.
- It offers a comprehensive visualization aid for the storage units in order to precisely map the specific packing instructions for different products. The trays in which the products are stored are available in a wide range of variants. Differences exist both in the number of compartments and in the height of the trays, which in turn determines the maximum possible stacking heights for different product types. The packaging (storage units) can be managed in the GRAIDWARE® Center. Packaging can be added, edited or deleted (see Figure 1).
- Our GRAIDWARE® software recognizes the appropriate packing instructions based on the article number.
- Stacks that have already been scanned are color-coded: dark green for closed, light green for open and yellow for partially filled trays (see Figure 2).
- A top view of the tray shows exactly which spaces are occupied and which remain free (see Figure 3).
- This digital guidance avoids manual counting errors and significantly reduces picking errors.

Materialnummer	Bezeichnung	Zeilen	Spalten	Stapelhoehe	Abbildung
121212	Tiefziehtray	1	3	2	Stapel
222222	Tiefziehtray	3	2	1	Stapel
333333	Hohlbox	1	1	1	Stapel
454521	Hohlbox	1	5	3	Stapel
700121	2,5"-SSD 7 mm - Tiefziehtray	1	3	9	Stapel
700122	2,5"-SSD 9 mm - Tiefziehtray	1	3	9	Stapel
700123	2,5"-SSD 7/8 mm - Chipbox	1	1	4	Stapel
700124	CF/CFast - Tiefziehtray	2	7	9	Stapel
700125	CF/CFast - Jewel Case	2	5	9	Stapel
700126	CF/CFast - Tiefziehtray	3	6	9	Stapel
700127	CLP - Tiefziehtray	3	10	9	Stapel
700128	CLP - Fallbox	1	1	24	Stapel
700129	eMMC 100 Balls - BEDEC-Box	7	14	10	Stapel
700130	eMMC 153 Balls - BEDEC-Box	8	19	10	Stapel
700131	4008 - Tiefziehtray	3	6	9	Stapel
700132	Chipkarte - Karton	1	500	1	Stapel
700133	M.2-2230 - Tiefziehtray	4	8	9	Stapel
700134	M.2-2242 - Tiefziehtray	4	6	9	Stapel
700135	M.2-2242 - Chipbox	1	1	24	Stapel
700136	M.2-2280 - Tiefziehtray	4	4	9	Stapel
700137	M.2-2280 - Chipbox	1	1	24	Stapel
700138	M.2-2280 - Tiefziehtray	4	3	9	Stapel
700139	M.2-2280 - Chipbox	1	1	24	Stapel
700140	MicroSD - BEDEC-Box	8	15	20	Stapel
700141	MicroSD - BEDEC-Box mit Clip	8	15	20	Stapel

Figure 1

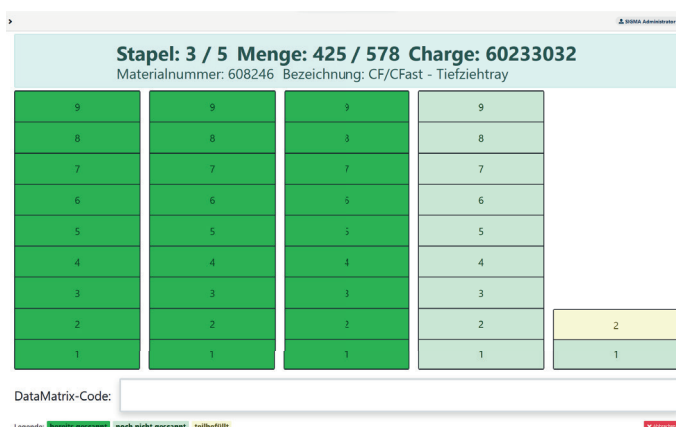


Figure 2

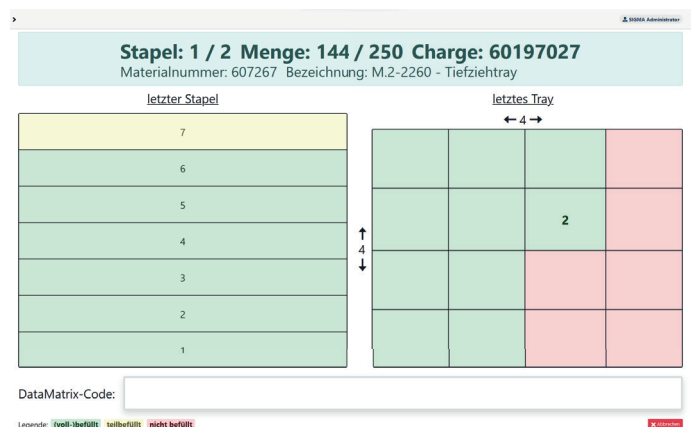


Figure 3

### 3. scanning the storage unit and completing picking

- A storage unit consists of several trays and is provided with a barcode containing the article number and batch.
- During picking, the storage unit is scanned and GRAIDWARE® checks whether the correct product has been picked for the order.
- Once the order is completed, the employee scans the storage unit again to list the completed orders.
- These orders are then automatically transferred to SAP and registered as completed.

### Conclusion: Successful process optimization

By digitally transforming the picking processes, Swissbit was able to achieve a significant increase in efficiency and accuracy. The error-prone manual counting process has been replaced by an intuitive and visually supported solution. Integration with SAP ensures smooth data exchange and up-to-date inventory management at all times. The entire software solution runs on-premise at Swissbit and ensures that all orders are compiled accurately and delivered to the recipients without delays. Swissbit has thus taken a decisive step towards digitalized and future-proof logistics processes.

## ***This is what the customer says...***

*“The digital support has fundamentally improved our order picking. Sources of error have been minimized, processes have been accelerated and integration with SAP ensures seamless traceability. Our employees particularly appreciate the intuitive visual support, which makes their work much easier.”*

*Philippe Wieczorek, Logistics Manager, Swissbit AG*