Hama GmbH & Co. KG
Optimized planning through flexible standards with DISKOVER

Height
planning security

Skillful
network scheduling

Clever
delivery time monitoring

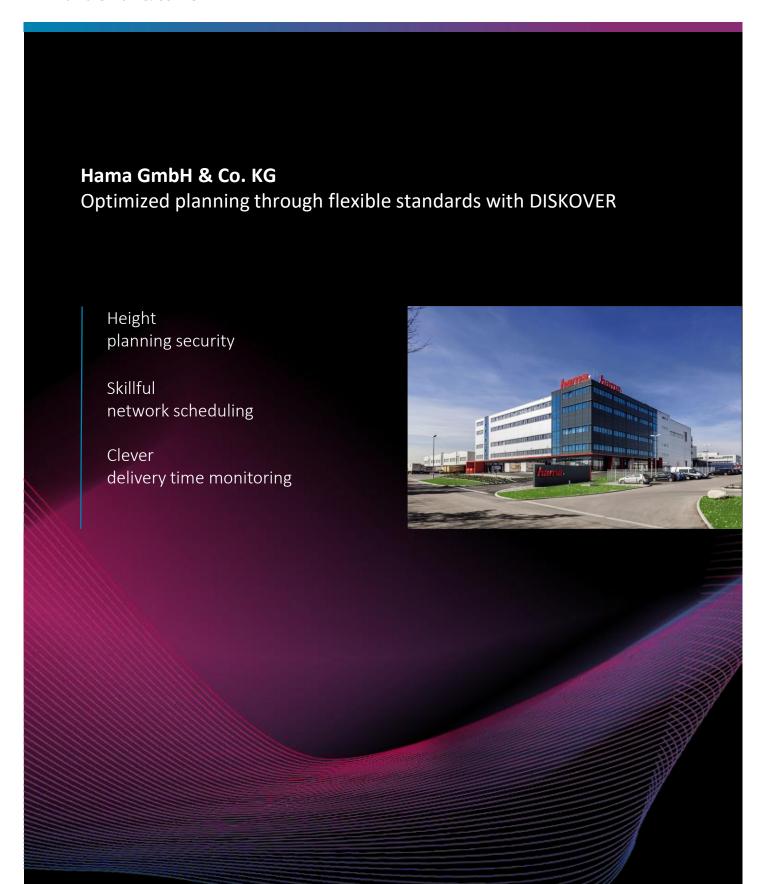## Hama GmbH & Co. KG
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At **Hama** Up to 10,000 packages leave the Monheim logistics center every day, which has a total of 70,000 pallet spaces. Digital radios, TV wall mounts, connection cables, voice-controlled Bluetooth speakers, cases for smartphones, chargers for cell phones and tablets, computer mice or photo tripods and school backpacks are just a small selection from the diverse product portfolio. The focus is on maximum product availability with minimal delivery times.

The planning challenge

The above-mentioned example articles, which are subjected to strict internal technical tests and quality controls, already give an initial indication of the particular challenges for planning and supply chain management at **Hama** flash. A large proportion of these products are subject to extremely rapid change, either technologically or fashionably. To make matters worse, many of these products have long replenishment times because they are sourced from the Far East and the supplying manufacturers generally do not keep any stocks.

At the same time, the **Hama** Customers can expect short response and delivery times even for larger quantities. Hama also offers selected partner customers a so-called goods clearing. This means that on the basis of contractual agreements or approval of **Hama** returns of goods are also possible on a larger scale. As a result, significant quantities of the **Hama** delivered goods even weeks later as a return to **Hama** which creates a relevant second material inflow stream that has a significant impact on quantity and inventory planning.

Some exemplary requirements that **Hama** in planning and scheduling are:

- Articles with a high promotional share and special requirements
- in addition to general articles, customer- or regional- and country-specific articles
- four different freight types in procurement logistics, also combined in order items to form one article
- dynamically developing tiered prices in procurement
- Collective ordering (combined scheduling) with and without optimized container filling
- Splitting order quantities of an article in the dimensions delivery date and freight type

- efficient management of quantity reservations and allocations of incoming material to ensure delivery readiness to the customer
- Parking of planned orders for the careful execution of supplier requests with a subsequent approval process depending on economic criteria
- Delivery time controlling and delivery time parameterization in procurement
- Determination of the goods receipt date based on the respective valid order or delivery phase (planned order, cargo ready, in transit).

The required system support With a new planning system that is tailored precisely to the diverse requirements of the Hama business model and the **Hama** processes, pursues **Hama** two essential goals: On the one hand, the desired delivery readiness should be ensured in the long term while at the same time optimizing the necessary stocks. On the other hand, efficiency and transparency in planning should be further improved and planning reliability and quality should be increased.

Hama solves this complex task with the APS software DISKOVER. The planning tool, which is developed by SCT GmbH, covers a large part of the **Hama** requirements, which meant that the standard could be implemented one-to-one in large parts. However, in some cases standard functionalities had to be adapted or expanded, or even completely new functionalities had to be designed and implemented.

The decisive factor for achieving the goal in a timely manner was and is that standard functionalities can be introduced quickly and that they demonstrate stable and high-performance runtime behavior - a decisive advantage of standard software. In the second step, however, it is essential that the "standard" is flexible and responsive to necessary adjustments and extensions so that the system processes can quickly follow the sometimes very specific requirements of the operational business model. It is therefore important to bring the standard and the customer-specific requirements together in the best possible way.

Following this principle, **Hama**, the combination of very efficient and integrative project implementation to identify and initialize adaptation requirements as well as controlling and monitoring implementation with the high-performance software development process model (SCRUM) at SCT GmbH has proven to be extremely effective.

Hama has given the project a high priority in terms of personnel and capacity. Stakeholders from all areas of the company as well as the future users were closely involved in the project process from the beginning. Regular, timely and close communication between the **Hama**, the core team, the stakeholders, the DISKOVER users, the consulting (Abels & Kemmner) and the development (SCT) ensured at all times that the customer's expectations and requirements could be incorporated into the implementation process at the right time with the right priorities.

To this end, the many different implementation points were summarized into sequential GoLive phases in terms of time and content and incorporated into the development. The methodology of the SCRUM process model in development - starting with the requirements analysis through to the last step, installation in the production system - ensures that the implementation of adjustments can be realized on schedule in terms of content and time with high performance and strict compliance with internal and external quality assurance requirements.

Flexibility and responsiveness were particularly important when introducing and adapting the system, because some requirements changed significantly during the course of the project due to the overall complexity of the topic and content. In such cases, a lack of adaptability of the software and/or the development methodology would inevitably lead to major disruptions and delays.

Hama has had the standard functionality of DISKOVER SCO adapted and expanded in many ways so that the solution covers the requirements of the Hama business model as best as possible. The decisive success factor here was the flexible design of the DISKOVER system, which prevents customer-specific adaptations from release capability of the system is impaired.

About Hama

Founded in Dresden in 1923 and based in Monheim, Bavaria, since 1945, **Hama** GmbH & Co KG is today one of the leading accessories specialists. The range includes around 18,000 products from the areas of consumer electronics, computers, telecommunications, photo/video and electrical household appliances. In addition to the brand **Hama**. The retail range also includes other own and partner brands. The international company has 2,500 employees working at 20 locations worldwide, 1,500 of them at its headquarters in Monheim.

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As a representative of many other adjustments, three are mentioned below that are **Hama** have brought about a significant improvement in terms of planning quality and planning effort:

Collective order / joint scheduling

The bulk order is for **Hama** a very important and frequently used business process. Therefore, a large number of adjustments have been made to the already very extensive standard in order to make the process even more efficient and user-friendly.

In the standard system, the collective order is used to bundle orders for a collection of items on the basis of planning groups in such a way that existing transport capacity, e.g. containers or trucks, is used as efficiently as possible. This is the case, for example, when a maximum weight or volume is to be observed or when the transport unit is to be filled up to this in a range-oriented manner. Various minimum and maximum conditions, e.g. order value or minimum order quantities, are observed.

Based on this standard, the following adjustments have now been made, among others:

- Conversion of the central collective order functionality of the MRP group system from material to sources of supply, which at Hama consist of supplier name, supplier number and freight type
- In the collective order result, tiered prices, if available, are also displayed.
- New Fields "container filling" and "Supplier type" support the control of the assignment of collective order functionality to articles.
- Change in the observance of restrictions that define the framework when creating the collective order
- separate display of the pallet quantity and the number of pallets at the order positions
- alternative entry options for bulk ordering:
- collective order via scheduling group
- free bulk order for any item
- bound collective order starting with one article and offering the dispo groups to which it belongs
- Checkbox to specify the forwarding of the header or item date in the order
- Warning on items that are missing master data information to carry out the bulk order, e.g. weight if this represents a restriction
- free combination of planned orders into a total order (without container refill)

The adjustments to the bulk order, as well as some other changes, showed that the added customer benefit was also a benefit for the software. For this reason, various changes were incorporated into the new product standard, which was thus able to take another step forward.

Delivery time monitoring and parameterization

In the standard version, DISKOVER takes over various time components from the leading ERP system in procurement, which are then assigned to the sources of supply of a material.

These components include the delivery time, lead time, transport time and safety time. In addition, a goods receipt processing time can be assigned to the article. If these parameters are missing in the ERP system, they can also be assigned in DISKOVER, e.g. via the set of rules that runs automatically at night.

Hama however, from the outset, the approach was to be able to parameterize the sometimes very long replenishment times even more precisely and in more detail in order to enable a further leap in planning accuracy.

The adaptation of the standard consisted of breaking down the existing time components into finer sections and increasing the accuracy of the time components by evaluating the actual times. For example, the delivery time in external procurement was divided into the components production time (of the supplier), transport time to the port, transport time from the port and safety time for the transport time. Furthermore, not only the article-supplier combination should play a role, but also the combination of article, supplier and type of freight. This requirement is obvious when one considers the procurement of articles from the Far East "by Air" and "by Sea" in terms of their duration.

A very sophisticated multi-stage calculation of actual delivery times depending on the different types of freight was designed and implemented, the results of which are used to parameterize delivery times and thus to automatically and permanently optimize all time components. An example of this is the multi-stage calculation of the transport time from the port. The first step is to check whether there is a sufficient data basis for a specific article in the form of a sufficient number of orders for a meaningful calculation. If this is the case, the time is calculated using the median at the level of the supplier, the type of freight (in this case "by Sea") and the port of departure. If this is not possible because the information on the port of departure is missing, the calculation is carried out at the supplier and freight type level. If this does not work either, the next step is to determine the combination of supplier country and freight type. There are other calculations that, for example, consider the combination of supplier country and article type if the required detailed information is missing. It goes without saying that, for example, new articles are treated differently and various calendars are taken into account.

The result is **Hama** is now able to optimally parameterize all time components at any time through very precise delivery time monitoring and to use deviation analyses (target-actual comparisons) for supplier discussions. In addition, the fine breakdown of the procurement time sequence enables correspondingly precise tracking of open orders by identifying the individual phases of the order from the time of ordering to receipt of goods in DISKOVER, thus greatly increasing the transparency of the respective access elements and thus the current supply situation.

It is almost unnecessary to point out that Hama also carries out this refinement and automatic determination of the time components for the internal supplier "Production".

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SOFTWARE

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