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## Case Study

***hama***®

### **Hama GmbH & Co KG**

Optimized planning by flexible standards with DISKOVER

- High planning reliability
- Clever compound scheduling
- Clever delivery time monitoring

At **Hama**, up to 10,000 packages leave the Monheim logistics center every day, with a total of 70,000 pallet spaces. Digital radios, TV wall mounts, connection cables, voice-controlled Bluetooth speakers, bags 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 availability of goods with minimum delivery times.

### The challenge of planning

The aforementioned sample articles, which are subjected to strict internal technical inspections and quality controls, already give rise to initial suspicions about special challenges for planning and supply chain management at **Hama**. 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 high replenishment lead times because they are sourced from the Far East and the supplying producers generally do not maintain warehouses.

At the same time, **Hama** customers can expect short response and delivery times, even for larger quantities. **Hama** also offers selected partner customers what is known as merchandise clearing. This means that, on the basis of contractual agreements or approval from **Hama**, goods returns are also possible on a larger scale. As a result, in some cases significant quantities of goods delivered by **Hama** are returned to **Hama** as returns even weeks later, creating a relevant second material inflow that has a not inconsiderable impact on volume and inventory planning.

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

- Articles with a high promotional content and special requirements
- customer- or region- and country-specific articles in addition to general articles
- four different freight types in procurement logistics, also combined in order items for one article
- dynamically developing graduated prices in procurement
- collective ordering (composite planning) with and without optimized container filling
- splitting of order quantities of an article in the dimensions delivery date and freight type
- efficient management of quantity reservations and allocations of material in supply to ensure the readiness for delivery versus customer
- parking of planned orders for careful execution of supplier inquiries with downstream release process depending on economic criteria
- Delivery time controlling and delivery time parameterization in procurement
- Determination of the goods receipt date on the basis of the respective valid order or delivery phase (planned order, cargo ready, in transit).

### The required system support

**Hama** is pursuing two essential goals with a new planning system that is a perfect fit for the diverse requirements of the **Hama** business model and **Hama** processes: On the one hand, the desired delivery readiness is to be sustainably ensured while at the same time optimizing the inventories required for this. On the other hand, efficiency and transparency in planning are to be further improved and planning reliability and quality are to be increased even more.

**Hama** solves this complex task with the APS software DISCOVER. The planning tool, which is developed by SCT GmbH, covers a large part of **Hama**'s requirements with its standard functionalities, which meant that the standard could be implemented one-to-one in large parts. In

some cases, however, standard functionalities had to be adapted or extended, or even completely new functionalities had to be designed and implemented.

It was and is crucial for the timely achievement of objectives that standard functionalities can be introduced quickly and that they exhibit 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 adaptations and extensions, so that the system processes can follow the sometimes very specific requirements of the operational business model in a timely manner. It is therefore essential to combine the standard and the customer-specific requirements in the best possible way.

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

**Hama** gave the project a high priority in terms of personnel and capacity. Stakeholders from all areas of the company, as well as future users, were closely involved in the project process from the very beginning. Regular, timely and close communication between the **Hama** core team, stakeholders, DISCOVER users, consulting (Abels & Kemmner) and development (SCT) ensured at all times that customer expectations and requirements were

fed into the implementation process at the right time with the right priorities. To this end, the many different implementation points were combined into sequential GoLive phases in terms of time and content and fed into development. The methodology of the SCRUM process model in the development - starting with the requirements analysis up to the last step, the installation in the productive system - ensures that the implementation of adjustments can be realized with high performance and strict adherence to internal and external quality assurance requirements in terms of content and time.

Flexibility and responsiveness during system implementation and adaptation were also particularly important because some requirements, caused by the overall complexity of the subject matter and content, still changed significantly during the course of the project. Lack of adaptability of the software and / or development methodology would inevitably lead to major disruptions and delays in such cases.

**Hama** had the standard functionality of DISCOVER SCO adapted or even extended in many ways so that the solution would cover the requirements of **Hama**'s business model in the best possible way. The decisive success factor was the flexible conception of the DISCOVER system, which prevents that the release capability of the system is impaired by customer-specific adaptations.

#### About...

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 product range includes around 18,000 products from the fields of consumer electronics, computers, telecommunications, photo/video and household electrical appliances. In addition to the **Hama** brand, the retail range includes other own and partner brands. Worldwide, 2500 employees work for the international company at 20 locations, 1500 of them at the headquarters in Monheim.

- 86653 Monheim, Deutschland
- Trade with electronic accessories
- [www.hama.com](http://www.hama.com)

As representatives of many other adaptations, three are mentioned below that have resulted in a significant improvement for **Hama** in terms of planning quality and planning effort:

### **Collective Order / Composite Disposition**

The collective order is a very important and frequently used business process for **Hama**. For this reason, 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, the collective purchase order is used to bundle the purchase orders of a group of articles on the basis of MRP groups in such a way that an available transport capacity, e.g. container or truck, is used as efficiently as possible. This is the case, for example, if a maximum weight or volume is to be taken into account or if the transport unit is to be filled to this maximum weight or volume 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, among others, have now been made:

- Conversion of the central collective order functionality of the MRP group creation of material to sources of supply, which at **Hama** consist of supplier name, supplier number and freight type.
- Scale prices are also displayed in the collective purchase order result, if available.
- New fields "Container filling" and "Vendor type" support the control of the assignment of collective order functionality to articles.
- Change in the observance of restrictions that define the general conditions when creating the collective purchase order
- separate display of the pallet quantity and the number of pallets at the order items
- alternative ways of entering the collective purchase order:
  - collective order via disposition group
  - free collective purchase order via any article
  - bound collective order with start via an article and offer of the MRP groups to which it belongs
- checkbox for defining the passing on of the header or item date in the order
- warning about articles, which are missing master data information for the execution of the collective order, e.g. weight, if this represents a restriction
- free combination of planned orders to a total order (without container replenishment)

With the adjustments to the collective order, as with some other changes, it became apparent that the added customer benefit was definitely also a gain for the software. For this reason, various changes were incorporated into the new product standard, which was thus also able to take a further step forward.

### **Delivery time monitoring and parameterization**

In the standard DISCOVER SCO takes over in the procurement different time components from the leading ERP system, which are assigned then to the sources of supply of a material. These components include the delivery time, the lead time, the transportation time and the safety time. In addition, a goods receipt processing time can also be assigned to the article. If there is a lack of these

parameters in the ERP system, they can also be assigned in DISKOVER SCO, e.g. via the nightly automatically running set of rules.

However, **Hama** pursued from the beginning the approach to be able to parameterize the partly very high replenishment times even more precisely and differentiated, in order to enable thereby the planning accuracy a further quality leap.

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 to the transport time. Furthermore, not only the article-supplier combination should play a role here, but the combination of article, supplier and freight type. This requirement is obvious when one compares the procurement "by air" and "by sea" in terms of duration, especially for articles from the Far East.

Thus, a very sophisticated multi-level calculation of actual delivery times depending on the different freight types was conceptualized and implemented, which with its results serves for delivery time parameterization and thus for the automatic and permanent optimal setting of all time components. An example of this is the multi-step calculation of the transport time from the port. In the first step, it is checked whether there is a sufficient database in the form of a sufficient number of orders for a meaningful calculation for a particular article. If this is the case, the time is calculated using the median at the level of the supplier, the freight type (in this case "by sea") and the port of departure. If this is not possible because the information of the port of departure is missing, the calculation is done on the supplier and freight type level. If this does not work either, the next step is the calculation with the combination of supplier country and freight type. There are other calculations which, 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, article novelties are treated differently and various calendars are taken into account.

As a result, **Hama** is now in a position to optimally parameterize all time components at any time by means of very fine delivery time monitoring and to use deviation analyses (target/actual comparisons) for supplier discussions. In addition to this, the fine decomposition of the procurement time sequence enables a correspondingly fine tracking of open orders by making the individual phases of the order from the order time to the goods receipt in DISKOVER SCO recognizable and thus the transparency of the respective receipt elements and thus the current supply situation is greatly increased.

The reference that **Hama** carries out this refinement and automatic determination of the time components also for the internal supplier "Production" is almost superfluous.