

Logistics



The iQ-Logistik module meets the demands of the material stockage. The module was needed for the stockage of spare parts in the maintenance area. The demands of this task go beyond the usual warehouse management systems. The **functions** for stock withdrawals were designed to be so comprehensible that **untrained personnel** do not have any problems with it. This is important e.g. for the corrective maintenance during the night shift when no logistic personnel is present.

According to this several strategies have been realised for the warehouse management:

- Repeated use of the same storage case for the same code no.; this simplifies the access for experienced personnel. It is also possible to set up a shortest path selection for frequently withdrawn parts.
- Chaotic storage
- Grouping of different articles in one storage case
- Selection of the storage case depending on the dimensions of an item

Creation of a Storage

- One **cost centre** contains one or several storages
- One **storage** is situated in a building
- One storage is divided into several **floors**
- One floor contains several **shelves**
- One shelf contains several **tiers**
- One tier contains several **storage cases**

Each hierarchy level can be arranged in a different way and can almost be free defined in regard to the number of underlying structures. The identification of each hierarchy level by a name is supported programmatically.

Once the storage has been set up it can be extended or reorganized.

Material Availability

- Display of all storage cases that contain a certain material; this summary applies to all storages
- iQ-Logistik knows all **physical available stocks** (reservations)
- iQ-Logistik knows all **planned withdrawals** for each day
- iQ-Logistik knows all **planned entries** for each day
- Message if falling below the minimum stock level
- **Planned available stocks** can be listed for each date

Order Requests, Orders Supplies

Order requests arise from the following situations:

- For each material a **minimum stock quantity** is specified. If the quantity in stock falls under this limit an order request is generated.
- For certain materials (extremely expensive, unfrequent use) there is no stock available. A demand is generated if the material is required.

It is possible to enter several information and controlling defaults:

- Material with a revision state according to the tables from iQ-GL (fundamentals)
- Type of the order request (internal/external = supplier)
- **Charging** of the **general goods in stock** (screws)
- **Charging** of a **cost centre** (robots)
- **Assignment** of the order to a **maintenance order**, a machine or a cost centre
- Desired supplier, delivery date etc.



After completion the order request is marked as *to be approved*.

- Only **certain persons** are allowed to approve the order
- The approval can refer to a **maximum price**
- The order request can be converted into several single orders
- A supply always refers to an order
- Order no., order item, delivery date and delivery quantity are shown at the supply
- The order request and/or the order can be delegated to other systems (e.g. **SAP R/3**)

Storage

When put into stock all materials are differed according to the revision state:

- Storage **without an order request**: Nevertheless it is checked if there is an order request. All necessary information for the correct storage has to be entered manually.
- Storage **with an order request**: If there is a reference to an order request all information is taken over into the form. The supplied quantity is taken from the booking entry and also entered into the form.

It is possible to choose from different storage strategies:

- The type of material is already stored in special cases. It is decided to add the newly delivered parts.
- There are storage cases that have been used to store this kind of material earlier. These cases are used again if desired.
- There are not any storage cases that have been used to store this kind of material earlier. Cases for storage are suggested.

As decision guidance the dimensions of the storage case are shown.

Storage cases that are locked or intended for inventory are not shown for storage purposes.

Material Withdrawals and Stock Transfers

- **Material withdrawal** on commission or for reservations
- Stock transfers to minimize the **withdrawal effort**

- Stock transfers in storage cases that already contain (additional storage) or that have contained this type of material

Material Reservations

- When generating a maintenance order (**on commission**)
- For a manual hand over on commission
- Information about the reservation; material with revision state, reservation no., date until the material has to be available, quantity
- A similar kind of material can be found out via the **class system**
- Additional information about the duration of the supply, preferred supplier, **alternative type of material** in the master data

Inventories

- Creation of an inventory list considering storage cases or materials
- Selection of storage cases **according to personnel availability** and date of the last inventory
- Locking of the storage cases that are intended for inventory for the duration of the inventory
- Booking of the stock difference

Material Information

For the logistic system the material master data are extended. Following information can be entered for each material:

- Authorised agent according to the purchase sector (electrics, pneumatics...)
- Price
- Type of purchase (self, external, via repair)
- Desired supplier, producer
- Type of use (spare part, equipment, production part)
- Availability on stock
- **Booking of the stock against the cost centre or goods in stock**
- Actual stock
- Last inventory
- Currently ordered quantity
- Usage (current quarter, last year)

