classix Software GmbH

# Warehouse processes with hand scanner

Instructions for using the scanner



a class of its own

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## 1 Goods receipt (Receiving)

Goods are delivered. The system checks whether these goods are expected and which purchase order belongs to the delivery. If everything is in order, the delivered goods are collected (Checkin).

#### Preparation

- Host system
  - Create and trigger purchase orders in host system.
- HESTIA
  - Import order in HESTIA.

#### Post-processing

- HESTIA
  - o Transfer goods receipt PO to host system.

#### 1.1 Receive goods (Checkin)

When the goods are received, the order is first identified and then the delivered goods are recorded (part, quantity) and placed on a loading device or directly in a storage bin.

#### 1.1.1 Processes - Goods receipt - From supplier

The goods are placed on a storage aid upon receipt. The storage resource/tool remains in the goods receipt area until it is put away (see Putaway).

#### Scanner

- Identification of the delivery (order number)
- Entry of the loading equipment on which the goods are placed
- Iteration: recording of the delivered goods
  - o Identification of the part
  - Recording the quantity

#### 1.1.2 Processes - Goods receipt - From supplier direct storage

The goods are stored directly during the collection. This is done if the goods are only to be picked up once (e.g. putting away small parts) or if parts are to be moved away directly because intermediate storage on a loading aid makes no sense (large parts).

#### Restrictions

The putaway bin must be located in a zone that belongs to the host warehouse to which the purchase order is issued.

- Identification of the delivery (order number)
  - Iteration: recording of the delivered goods
    - o Identification of the part
    - o Recording the quantity
    - o Entry of the putaway bin

# 2 Storage (Putaway)

Goods that are lying on a loading device are to be placed into storage. Normally this activity follows "Processes - Goods receipt - From supplier".

#### 2.1.1 Processes - Goods transport - Storage - Individual parts

Goods are located on a loading device. This is to be placed into storage sorted by parts (part, quantity, putaway bin).

The employee identifies the goods using the loading device and picks it up (e.g. a pallet of goods to be stored is loaded onto an ant). The employee then identifies the topmost part to put it away. To do this, the employee is shown the standard storage bin for the part and the other storage bins in which the part is still located. The employee decides on a putaway bin and puts away the part, specifying the quantity. This step is repeated until the storage resource is empty.

#### Scanner

- Identification of the loading equipment
- Iteration: Place goods from storage resource to putaway bin
  - o Identification of the part to be placed in storage
  - Recording the quantity
  - Entry of the putaway bin

#### Restrictions

The putaway bin and the goods in the warehouse tool must belong to the same host warehouse.

#### Alternatives

- Maintenance Transfer Transferring individual parts
- Maintenance Transfer Transfer all individual parts

#### 2.1.2 Processes - Goods transport - Storage - Mixed licence

Goods with different parts are located on a loading aid. In contrast to "Processes - Goods Transport - Putaway - Individual Parts", where the parts are separated and then put away, the entire loading device should be put away in a single storage bin.

- Identification of the loading equipment
- Entry of the putaway bin

#### Restrictions

The putaway bin and the goods in the warehouse tool must belong to the same host warehouse.

#### Alternatives

- Maintenance - Transfer - Transfer license

#### 2.1.3 Processes - Goods transport - Storage - Article pure license

Goods of one part are located on a loading device. The entire loading device is to be placed into a single storage bin.

#### Scanner

- Identification of the loading equipment
- Entry of the putaway bin

#### Restrictions

The putaway bin and the goods in the warehouse tool must belong to the same host warehouse.

#### Alternatives

- Maintenance - Transfer - Transfer license

# 3 Outgoing goods

A customer orders goods (sales order) and specifies when and how the goods are to be delivered. The sales order and the specifications are entered in the order office. The goods are then assembled and dispatched in the warehouse according to the specifications.

#### Preparation

- Host system
  - o Enter sales order
  - Release pick list based on the sales order
- HESTIA
  - Import customer order and picking list in HESTIA
  - o Release pick list, allocate, release allocation

## 3.1 Pick single line (PickAndCollect)

Picking of individual parts takes place in the designated zones. The goods are picked part by part and placed in a **picking container**. When the pick container is full or all picks have been processed, the pick container is placed in a storage area for further processing.

The picked goods may need to be consolidated (merged). This is always the case if one pick container is not sufficient or the goods from several picking zones are consolidated.

#### 3.1.1 Processes - Outgoing goods - To customer - PickAndCollect - Pick list selection via Id

The employee chooses a picking list either by directly entering the picking list number or by selecting a picking list from a list of picking lists to be processed. This list is sorted according to various criteria such as priority, delivery date, etc.

#### Scanner

- Selection of the pick zone (if not already selected before)
- Pick list selection (Id or from list)
- Selection of the new pick container
- Iteration: Pick
  - o Identification of the picking place
  - Identification of the loading equipment (optional)
  - o Identification of the part
  - Recording the quantity
  - Recording of serial and batch numbers (optional)
- Choice of storage location

The choice of storage location is free. However, the employee is shown whether the picked goods must be consolidated and in which storage bins goods that have already been picked are stored for this sales order. This display helps the employee to find a suitable storage location.

# 3.1.2 Processes - Outgoing goods - To customer - PickAndCollect - Pick list selection via picking license

In contrast to "Processes - Goods issue - To customer - Pick list selection via Id", a pick list is not explicitly selected, but on the basis of a pick container that has already been stored. Otherwise, however, the process is identical.

#### Scanner

- Selection of the pick zone (if not already selected before)
- Selection of the parked pick container (this results in the pick list and the picks still to be made)
- Selection of the new pick container
- Iteration: Pick
  - Identification of the picking place
  - o Identification of the loading equipment (optional)
  - Identification of the part
  - Recording the quantity
  - Recording of serial and batch numbers (optional)
- Choice of storage location

#### 3.1.3 **Processes - Outgoing goods - To customer - PickAndCollect - Pick license forward**

If there is a picking container on a storage location into which further parts can be picked, this picking container can be resumed using this function and the picking process can be continued.

#### Scanner

- Selection of the pick zone (if not already selected before)
- Selection of the parked pick container (this results in the pick list and the picks still to be made)
- Iteration: Pick
  - Identification of the picking place
  - o Identification of the loading equipment (optional)
  - o Identification of the part
  - Recording the quantity
  - Recording of serial and batch numbers (optional)
- Choice of storage location

#### 3.1.4 Processes - Goods issue - To customer - PickAndCollect - Settings

If the employee changes his picking zone, this change is tracked via the settings.

#### Scanner

- Selection of the picking zone

### 3.2 Picking large parts or entire storage aids (PickAndDrop)

Large parts or whole pallets are stored in separate zones. To pick from these zones a **forklift truck** (or similar equipment such as pallet truck, ant, etc.) is **necessary**. When picking, the

goods are placed on the forklift truck and the forklift truck immediately moves the goods to the storage area. These are therefore single picks.

The individual picks are placed in a queue. They are placed in the queue according to the pick zone, priority of the pick lists and other criteria.

#### 3.2.1 Processes - Outgoing goods - To customer - PickAndDrop - Pick list selection automatically

The employee is automatically assigned the top entry from the queue for the pick zone in which he is logged in. After the pick has been processed, the system automatically checks whether there are other corresponding picks in the queue. If so, the employee is immediately assigned the next pick.

#### Scanner

- Choice of truck (if not previously selected)
- Selection of the pick zone (if not already selected before)
- Iteration: Pick
  - Automatic selection of the next pick
  - Identification of the picking place
  - o Identification of the loading equipment (optional for large parts picks)
  - For large parts:
    - Identification of the part
    - Recording the quantity
  - Recording of serial and batch numbers (optional)
  - Choice of storage location

#### 3.2.1.1 Remarks

The choice of storage location is free. However, the employee is shown whether the picked goods must be consolidated and in which storage bins goods that have already been picked are stored for this sales order. This display helps the employee to find a suitable storage location.

If the loading aid suggested for picking is not accessible to the forklift truck, another equivalent storage aid can be used.

# 3.2.2 Processes - Outgoing goods - To customer - PickAndDrop - Pick list selection via pick license

If you want to pick a pick list for which goods have already been picked and placed (typically from PickAndCollect), but which is not at the top of the queue, this option allows you to bring forward a pick from the queue.

- Choice of truck (if not previously selected)
- Selection of the pick zone (if not already selected before)
- Selection of the parked pick container (this results in the pick list and the picks still to be made)
- Iteration: Pick

- o Automatic selection of the next pick in the pick list
- o Identification of the picking place
- o Identification of the loading equipment (optional for large parts picks)
- For large parts:
  - Identification of the part
  - Recording the quantity
- Recording of serial and batch numbers (optional)
- Choice of storage location

#### Remarks

The same remarks apply as for "Processes - Outgoing goods - To customer - PickAndDrop - Pick list selection via pick license".

#### 3.2.3 Processes - Outgoing goods - To customer - PickAndDrop - Settings

If the employee changes his pick zone or forklift, this change is tracked via the settings.

#### Scanner

- Choice of forklift truck
- Selection of the picking zone

#### 3.3 Transport of goods

In the picking process, picked goods are placed in storage aids (PickAndCollect) or the goods are already in storage aids (PickAndDrop - storage aids). These are placed in storage bins after the picking process. In the case of large parts, it is ensured that these are placed on a storage aid after the picking process, which in turn is placed in a storage bin.

#### 3.3.1 Processes - Outgoing goods - To customer - Transport of goods - Transporting picked license

If the storage aids are to be subsequently moved to another storage bin, this is done using this function. When the warehouse worker stores the storage resource/auxiliary again in a storage bin, the system displays a message to the warehouse worker where goods of the same pick order are located (in the same way that the pick containers/storage resources are stored after picking).

#### Scanner

- Choice of truck (if not previously selected)
- Selection of the parked pick container/storage aid
- Choice of storage location

#### 3.3.2 Processes - Outgoing goods - To customer - Transport of goods - Pick licenses

If there are picking containers/storage aids that have not yet been placed on a forklift truck for obvious reasons and that are assigned to a picking process, they can be placed in a storage bin using this function. This is a **correction function**.

- Choice of truck (if not previously selected)
- Choice of storage location

#### 3.3.3 Processes - Outgoing goods - To customer - Transport of goods - Settings

If the employee changes his forklift, this change is tracked via the settings.

#### Scanner

- Choice of forklift truck

#### 3.4 Packing for customer

When all goods on a picking list have been picked and are in the appropriate place in the dispatch area (this includes the packing, wrapping and preparation zones), the goods can be packed and dispatched.

#### Remarks

The goods can be consolidated prior to shipment. There are several possible combinations with "Pack for customer". See also "Processes - Goods Issue - To Customer - Consolidation Customer".

Packing can only be started when all the goods on a picking list are in exactly one shipping zone. If the goods are in several shipping zones, they must first be brought to the zone where the packing process takes place. Normally this is done with "Processes - Outgoing goods - To customer - Transport of goods - Transport picked license", but it is also possible with "Processes - Outgoing goods - To customer - Consolidation customer".

#### 3.4.1 Processes - Outgoing goods - To customer - Packing for customer - Packing individual parts

The dispatch of parcels is carried out with appropriate service providers. For this purpose, the picked goods must be packed into individual cartons. After packing, the weights of the cartons are optionally requested.

The packing of small and medium sized parts into cartons can also take place if the cartons do not leave with a parcel service provider (i.e. the goods issue is not completed) but are packed onto a pallet afterwards, where other goods of the same picking list are already located. In this case, the packed cartons are placed on the other warehouse utilities using "Processes - Goods Issue - To Customer - Consolidation Customer" or "Processes - Goods Issue - To Customer - Transport Picked License".

- Selection of the parked pick container/storage aid
- Choice of package/box
- Iteration: Pack
  - o Choice of the part
  - o Entering the quantity
  - Optional: Selection of another parcel/box
- Optional: Input of the weights of the packages
- Optional: Closing goods issue

#### 3.4.2 Processes - Goods issue - To customer - Packing for customer - Pack license

Large shipments are handed over to forwarding agents. These are usually palletized goods. They are usually wrapped or otherwise well secured on the pallet.

When packing a license, the only thing that remains to be done is to identify the storage aids that belong together.

#### Scanner

- Selection of the parked pick container/storage aid
- Iteration:
  - Selection of another parked pick container/storage aid
- Closing goods issue

#### 3.5 Consolidation Customer

After the picking process, the picked goods are placed on the storage locations. Depending on this, an order of the goods suitable for dispatch can be achieved already when picking the goods or when subsequently placing the goods on the shelf. If this is not the case, the goods can be consolidated. This saves space and thus shipping costs.

#### Remarks

The employee is already informed when the picked goods are put down that consolidation is required. Usually the goods are then placed in a staging area so as not to get in the way of the goods that can be packed directly.

The function "Processes - Goods issue - To customer - Pack for customer - Pack license" can also be used for the pick containers standing in the staging area.

#### 3.5.1 Processes - Outgoing goods - To customer - Consolidation Customer - Consolidate individual parts

If individual parts are to be moved from one storage aid to another, this function is used.

#### Scanner

- Choice of the parked pick container/storage aid from where the part leaves
- Choice of the part
- Entering the quantity
- Choice of the parked pick container/storage aid where the part goes

# 3.5.2 Processes - Outgoing goods - To customer - Consolidation Customer - Consolidate license

If an entire storage aid is to be placed on top of another (e.g. a pick carton on a pallet), this function is used.

- Selection of the parked picking container/storage aid, which is placed on top of the other picking container
- Selection of the parked pick container/storage aid on which the pick container to be parked is to be placed

- Choice of whether only the contents of the first pick container or the pick container itself is stored

**3.5.3 Processes - Goods Issue - To Customer - Consolidation Customer - Status Provision** If there are pick containers employed in the staging area, this function can be used to display which of these pick containers are ready for dispatch.

## 4 Inventory

During the inventory, the goods in the warehouse are counted according to the specifications.

#### 4.1.1 Maintenance - Inventory - Inventory

The count is planned using physical inventory documents. One document usually covers several storage bins, and the physical inventory document lists the expected quantities of the parts.

#### Preparation

- HESTIA
  - o Create physical inventory document

#### Scanner

- Choice of physical inventory document
- Iteration: Counting
  - o Selection of the storage location
  - o Choice of the part
  - o Entering the quantity

#### Remarks

After counting with the scanner, the physical inventory document is posted and transferred to the host system.

#### 4.1.2 Maintenance - inventory - counting serial numbers

The serial numbers of a part lying on a storage aid are recorded here. The main purpose of this recording is to speed up the picking process so that the serial numbers do not have to be recorded during picking. It is therefore a preliminary entry rather than an inventory of serial numbers.

#### Restrictions

The storage aid must be article clean (no mixed pallet)

- Choice of storage aids
- Iteration: Recording the serial numbers
  - o Enter serial number

# 5 Adjust stock

In the case of Adjust stock, stocks are either corrected or set. Basically, these functions must not be used because they change the stock levels without an underlying process. In justified exceptional situations, however, they can still be used, for example, when a ware-house is counted for the first time, since it is not possible to work with the physical inventory document at this point.

#### 5.1.1 Maintenance - Adjust stock - Increase stock

Manual stock increase.

#### Scanner

- Selection of the storage location
- Choice of the part
- Input of the increase quantity

#### 5.1.2 Maintenance - Adjust stock - Reduce stock

Manual stock reduction.

#### Scanner

- Selection of the storage location
- Choice of the part
- Input of the reduction quantity

#### 5.1.3 Maintenance - Adjust stock - Reduce stock

Manual setting of the stock. Used for initial counts.

#### Scanner

- Selection of the storage location
- Choice of the part
- Input of the stock

#### 5.1.4 Maintenance - Adjust stock - Change condition

If the condition of a product changes (e.g. from available to defective) this can be traced with Change Condition.

- Selection of the storage location
- Selection of the inventory record (part, quantity, condition)
- Enter the quantity that changes state
- Entering the new status

# 6 Transfer

In a stock transfer, goods are moved from one storage bin (source storage bin) to another storage bin (destination storage bin).

#### Remarks

Both the source storage bin and the destination storage bin can be a "black hole". Blackhole means that it is a storage bin that belongs to a non-stock-managed warehouse.

If the two storage bins do not belong to the same host warehouse, a stock transfer document is created automatically.

#### 6.1.1 Maintenance - Transfer - Transferring individual parts

If loose goods are transferred, this function is used.

#### Scanner

- Selection of the initial storage bin
- Choice of the part
- Enter the quantity to be transferred
- Optional: recording of serial numbers
- Selection of the new target storage bin

#### 6.1.2 Maintenance - Transfer - Transfer license

Function to transfer entire storage aids. The goods lying in it are implicitly transferred as well.

#### Scanner

- Selection of the storage resource (the outgoing storage bin is determined automatically)
- Selection of the new target storage bin

#### 6.1.3 Maintenance - Transfer - Transfer all individual parts

Function to transfer entire storage aids. The goods lying in it are implicitly transferred as well.