

# Internal orders

Internal orders allow for ordering items between warehouses of the same company. Execution of these orders is performed through WM documents which register warehouse movements.

A list of internal orders is available from the level of *Warehouse* → *(Orders) Internal*.

The list contains internal orders:

- which include a warehouse (source/target) assigned to the document type in a given center
- issued in a given center, regardless of warehouses associated with center and IO document.

## Creating IO

The screenshot shows the SAP Internal Order (IO) form for document IO/2020/00003. The form is divided into a left-hand metadata section and a right-hand items table.

**Left-hand metadata section:**

- Confirmed:** IO / 2020 / 00003
- Subtotal:** 12.995,00 EUR
- Source Warehouse:** Main Warehouse
- Target Warehouse:** Complaint Warehouse
- Date of Issue:** 27/05/2020
- Reservation Activation Date:** 27/05/2020
- Expected Date:** 0 days (27/05/2020)
- Transaction Type:** National
- Handled By:** Anna Smith
- Owner:** Company

**Right-hand items table:**

No.	Code	Name	Features	Quantity	UOM	Subtotal Value
1	SMT-001	Smartphone		5,000	item	3.495,00
2	LPT-001	Laptop		5,000	item	6.000,00
3	LCDM-001	LCD Monitor		5,000	item	3.500,00

Internal order form

On an IO document it is necessary to specify:

- **source warehouse** from which items are ordered and, subsequently, released to a target warehouse. It is possible to change the source warehouse until the second confirmation of a document (by a center receiving a

document). As a target warehouse it is possible to set a warehouse which is available in:

- the parent company and its child centers, on condition that parameter *Dedicated for the parent company* is checked on the warehouse form.
- in a center of *Company* type and its child centers there will be warehouses attached to the given company available for selection

#### Note

A warehouse of *Distant* type cannot be set as a source warehouse.

- **target warehouse** in which items are received. Active warehouses assigned to the IO document type in the center in which a document is being issued/generated, are available for selection. After first confirmation of an IO (by the center issuing an order – button [**Submit**]), the possibility of changing a source warehouse is blocked.

#### Note

If a target warehouse is the same as a source warehouse the system blocks the possibility of document confirmation.

Parameter *Reserve resources* is activated only after the first confirmation of a document, when its status is *Submitted*. Only a center being the owner of the source document has permissions to edit the document. The other rules of using the parameter are the same as in the case of sales orders.

## Value of an IO item

The value of an item of an IO is calculated on the basis of the last purchase price of a given item. The purchase price is determined on the basis of those documents whose owner is a company or its child centers, in which a document is being issued.

## **I0 items**

When adding an item with features affecting the lot assigned to it, a user can indicate values for individual features of an item. It is not possible to define features for subitems. It is possible to edit feature values until the first confirmation of an I0 document.

## **Options available for internal orders**

For internal orders, it is possible to submit an order with the use of button [**Submit**]. After clicking it, an order receives status *Submitted*, which means that it has been confirmed by the center issuing it (source center). The first confirmation results in generating an order in a target warehouse.

During the first confirmation of a document, purchase subitems are generated (not visible from the level of section *Subitems* on item details).

Detailed information on submitting orders can be found in article [Submitting I0](#).

The document status changes to *Confirmed* only after it has been confirmed by the center receiving the order (source center). Then, sales reservations are generated and it is possible to generate other documents.

Section *Subitems* of the tab *General* contains sales subitems assigned to a source warehouse. Sales subitems are created during the second confirmation done by the center who owns the source warehouse and from which the merchandise is ordered.

When generating sales subitems, the system retrieves resources (if the parameter *Reserve resources* is checked) according to feature values indicated on an item or sets features on subitems without resources on the basis of item features.

Detailed information regarding submitting orders can be found in article [Confirming IO](#).

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## Submitting IO

### First IO confirmation – button [Submit]

After first confirmation of an IO document, the system changes its status into *Submitted*. In order to be able to submit an order it is necessary to:

- specify source warehouse
- specify target warehouse
- add at least one item

During the first confirmation of an IO document:

- the system generates purchase reservations (increases quantity in column *Orders* in the stock levels) in the warehouse selected in an IO document as a target warehouse – the same as it is in the case of confirming a purchase order
- “purchase reservations” are collected from the target warehouse with a WM+ document
- no document subitems are created

An IO can be submitted by the center issuing a document and the center in which a target warehouse from the IO has been assigned to the IO document definition

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# Confirming IO

## Second IO confirmation – button [Confirm]

Conditions which are necessary to perform the operation of the second confirmation:

- **necessary condition** – the center performing the operation has permission to the source warehouse (the warehouse to which sales subitems will be generated during the second confirmation) granted, that is this warehouse is assigned to the IO definition in this center
- **additional conditions**
  - to be able to confirm an IO with *Initiated* or *Unconfirmed* status immediately with the use of [Confirm] button and without confirmation with the button [Submit], a center must have permissions both to source warehouse and target warehouse granted; it results from the fact that the system generates purchase subitems as well as sales subitems simultaneously
  - if the target warehouse on an IO is not a warehouse assigned to the IO document type in a given center, the system allows for the second confirmation in this center, only if the status of the order is *Submitted* (if it is confirmed by the issuing center)

During the second confirmation of an IO document:

- the system generates sales reservations in the target warehouse for items included in the order, taking into account the parameter *Reserve resources* – the same as it

- is in the case of confirming a sales order
  - sales reservations are collected from the source warehouse with a WM- document
  - the system enables generation of other documents from the IO
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## Operations on IO

### Unconfirming submitted/confirmed IO

The system allows for unconfirming an IO document if its status is:

- **submitted** – from the level of the center issuing a document or from the level of a center in which a target warehouse is assigned to the IO document type – the status of an IO is changed into *Unconfirmed*
- **confirmed** – from the level of the center receiving a document or from the level of a center in which a source warehouse is assigned to the IO document type – the status of an IO is changed into *Submitted*

When unconfirming IO documents, the following reservations are canceled:

- **purchase reservations** – when unconfirming an order with *Submitted* status
- **sales reservations** – when unconfirming an order with *Confirmed* status

## Closing IO

Documents with *Submitted*, *Confirmed* or *Pending* status can be closed.

To be able to close a pending IO, documents generated from such order must be confirmed. Additionally, in the case of WM-documents, it is necessary to generate WM+ documents, otherwise it will not be possible to close the IO.

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## Reservations on IO

On an IO, similarly as on a SO, it is possible to

- associate manually resources and lots with sales subitems of an IO. Such a possibility is available from the moment of generation of sales subitems by the system, that is after the second confirmation of an IO.
- reserve/release resources with the use of buttons [[Reserve Resources](#)] and [[Release Resources](#)]

These operations can be performed only for subitems of orders with *Confirmed* or *Pending* status. Moreover, there must be subitems for which unprocessed quantity is higher than zero.

Both operations can be initiated for many documents, items or items at the same time. Button [**Release Resources**]/[**Reserve Resources**] used from the level of:

- **list of orders** – releases/reserves resources for all the items of selected orders and their unprocessed items
- **document form** – releases/reserves resources for all unprocessed subitems of selected items

- **item form** – releases/reserves resources for selected subitems of a given item, for unprocessed quantity

After the operation is performed the system displays a message containing detailed information on released/retrieved resources. Number of details contained in the message depends on the level from which the release/reservation has been performed.

Criteria verified during the association of resources with IO subitems:

- **item** – consistent with the item of the subitem
- **warehouse** – consistent with the warehouse of the subitem
- **date of creating a resource/lot** (warehouse receipt) – not later than the current date – not applicable in the case of AVCO
- **features** – consistent feature values of resources/lots with those of IO subitems:
  - if in the item of an order the value of features affecting lots was specified, the resources/lots being searched for must have the same feature value
  - if in the item of an order the value of features affecting lots was not specified, the resources/lots being searched for may or may not have any value assigned to the feature

The order of collecting resources/lots initiated with the button [**Reserve Resources**] depends on the method of queuing resources defined in the system. A user cannot indicate resources/lots with which subitems on an IO must be associated.

In the case of issuing an IO in a center in which a warehouse being the source warehouse on the IO has not been assigned to IO document type, columns *Document* and *Source Document* in subitems will not be filled out (because this center does not



have permissions to that warehouse in reference to this document).

When processing an IO with a WM-, the system decreases the quantity of the IO document subitem.

In tab *Deliveries* in section *Lots/Deliveries* lots and deliveries are presented only if the center in which an IO document is being edited has access to the source warehouse.

#### Note

Two types of reservations will be generated to one item of an order: purchase reservations – generated during the first confirmation of an IO (confirmation on a target warehouse) and sales reservations – generated during the second confirmation of an IO (confirmation on a source warehouse). Sales reservations are executed through WM- documents from the source warehouse and purchase reservations are executed through WM+ documents on the target warehouse.

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## **Documents generated from IO**

### **Generating WM- from IO**

A WM- generated from an IO allows for releasing items from a source warehouse to a target warehouse.

It is possible to generate a WM- in a center, in which to WM- document type the warehouse being a source warehouse on a confirmed IO document is assigned.

The features selected on an item/subitem of an IO are included, with a possibility of editing them on the generated WM-. It is possible to generate many WM- documents to one IO:

- the quantity in a WM- document can be decreased/increased in relation to the quantity in an IO
- while generating a WM- document, the system checks the quantity which has already been “released” with other WM- generated from the IO – if WM- documents have already been generated for all items included in the order, then the system blocks generation of another WM- and displays an appropriate message; otherwise, it generates another WM- for quantity remaining to be executed on the IO

#### Note

If in a WM- generated from an IO an item gets deleted and added again, the association between that item in the WM+ and the item in the IO will not be recreated.

A WM- document generated from an IO document is visible in the list of warehouse movements in the center issuing the IO and, in the centers, who own the source or the target warehouse indicated in the WM-.

## **Generating WM+ from IO**

A WM- generated from an IO allows for releasing items from a source warehouse to a target warehouse.

It is possible to generate a WM+ to a WM- in a center, in which to WM+ document type the warehouse being a target warehouse on a confirmed target IO document is assigned.

When generating a WM+ “purchase reservations” are processed, which were generated during the first confirmation of an IO.

Except for generating a WM+ from the level of the list of IO to a document from which a WM- was previously generated, the system enables also the standard method of generating WM+, from the level of the list of WM-.

In case many WM- documents were generated from an internal order and they are not yet associated with WM+ documents,

then, when trying to generate a WM+ from the level of an internal order, the system displays a list of WM- documents associated with a given IO and allows a user to decide to which WM- the WM+ should be generated.

If many WM- documents were generated from an internal order, but to all of them, except for one, WM+ documents were generated, then the system immediately generates a WM+ to that WM- .

## **Generating P0 from IO**

A P0 is generated from an IO to the source warehouse specified in the IO. It allows for handling a situation when there are insufficient resources in a warehouse from which one of the centers wants to order an item.

The system allows for generation of a P0 from the center in which to P0 document type the warehouse being the source warehouse on an IO document is assigned and if IO status is *Confirmed*.

Such generation is performed according to the same rules as generation of a P0 from a S0. After the system is started, it displays a generation optimization window in which a user must decide whether all items from the source IO are to be included in the P0 or only those not yet executed.

When generating a P0 from an IO, the system also includes the features selected for items/subitems on the IO along with a possibility of editing them on the generated P0.