

# WMS: Order Picking

SYSPRO 8

Reference Guide

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# Order Picking

## Exploring

### Where it fits in?

The **Order Picking** feature provides picking routines to improve order book fulfillment and the management of the pick processes. It is an extension of the multi-bin functionality that is currently available in SYSPRO.

A mission can be generated from a sales order pick in order to assign picking tasks to the warehouse operation. The picking tasks can then be completed using the Espresso **WMS Missions & Tasks** application. The system is updated real time as the stock is picked and the task completed.

## Terminology

### Destination bin

A destination bin is configured as a dispatch bin (typically located in the dispatch area) and is required when you create a pick.

Once a pick is completed, a bin transfer is created (i.e. from the bin allocated against the stock code on the sales order to the destination bin entered).

### Lost and found warehouse (L&F)

This is the warehouse optionally configured to store variances arising during picking or cycle counting.

The quantity that is short is moved to the lost and found warehouse at the time the pick line or entire pick is completed and set to **C - PICKED**.

Items can be retrieved from the L&F warehouse during cycle counting using the **Lost and Found Warehouse Review** program.

The lost and found warehouse is only enabled if a warehouse is defined at the **LOST AND FOUND WAREHOUSE** setup option and **PROCESS TO LOST AND FOUND WAREHOUSE** is selected at the **ACCOUNTING FOR SHORTAGES** option (**Warehouse Maintenance**).

### Sales order picking

This is the process of finding and extracting products from a warehouse bin to fulfill customer sales orders.

### Pick movement type

This is a bin transfer movement type that applies when you complete a pick. The quantity picked is transferred from the sales order bin to the destination bin.

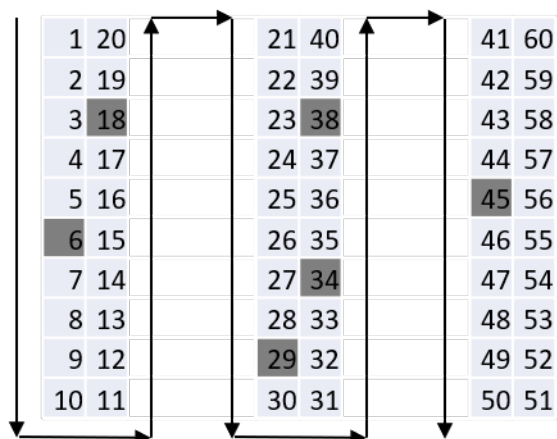
## Picking slip

This is a report that details the items required for picking and where to locate them.

A picking slip can only be printed once a pick has been created. Thereafter, you can print the pick at any time until it is complete.

## Postman walk

This is a warehouse picking sequence where the picker walks down one aisle and up the next, picking items along the way. The postman walk picking sequence is depicted in the image below:



## Release to picking

A sales order may be set aside to create a pick at a later stage. These sales orders have not yet allocated stock.

You use the **Pick Review** program to select these sales orders (at a later stage) to create a pick.

## Sales order

Sales orders are used to record the sale or transfer of goods and services to both internal and external customers.

It forms a temporary legal contract between your company and the customer, as well as providing an audit trail of goods sold or transferred.

## Short pick

This denotes a scenario where the original quantity for a sales order cannot be satisfied with the actual quantity found in the bin, resulting in an outstanding quantity for the sales order line.

If you decide to complete this pick while there is outstanding quantity, the outstanding quantity is placed on back order.

## Warehouse

Within SYSPRO, a warehouse represents an actual warehouse containing your inventory items (i.e. a physical warehouse) or a grouping of your inventory according to specific characteristics of the item (i.e. a logical warehouse).

### FOR EXAMPLE:

You may want to split your inventory raw materials and finished goods into different logical warehouses even though they are located in the same physical warehouse.

You maintain warehouses using the **Warehouse Maintenance** program.

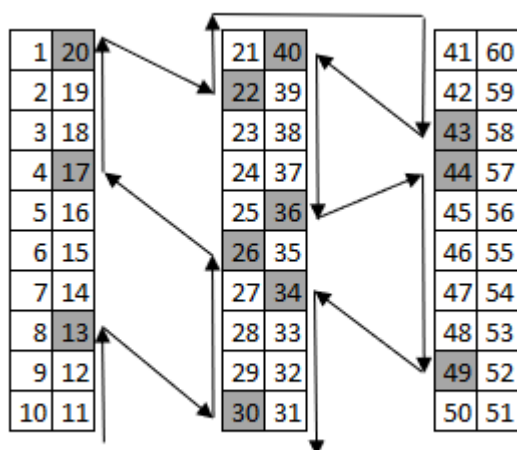
## Mission and task

A mission (allocated to an employee or team) can be created for inventory putaway, sales order pick or cycle count transactions. Once missions and tasks are assigned to the employee or team they can be serviced using the Espresso **WMS Missions & Tasks** application or the **WHM Review Mission Tasks** program.

Operators see their tasks on a mobile device. As the stock is physically moved and the task completed, the system gets updated in real time. Once all tasks are marked as done, the mission can be completed.

## Z-pick

This is a warehouse picking sequence where the picker walks in a zig-zag pattern, picking from a bin in one aisle and then moving diagonally across to the next bin in the opposite aisle, and so on. The Z-pick sequence is depicted in the image below.



# Starting

## Prerequisites

To use this feature, the following setup option(s) must be enabled:

### Inventory Configuration

*Setup Options > Configuration > Distribution > Inventory*

- Multiple bins
- Associate serials by bin
- Fixed bins
- Show Warehouses (hyperlink)
  - Picking cycle in use
  - Accounting for shortages
    - Process as stock adjustments
    - Process to lost and found warehouse
  - Lost and found warehouse
- WMS missions options
  - Enable for sales order picking

## Security

You can secure this feature by implementing a range of controls against the affected programs. Although not all these controls are applicable to each feature, they include the following:

- You restrict operator access to *activities* within a program using the **Operator Maintenance** program.
- You can restrict operator access to the *fields* within a program (configured using the **Operator Maintenance** program).
- You can restrict operator access to *functions* within a program using passwords (configured using the **Password Definition** program). When defined, the password must be entered before you can access the function.
- You can restrict access to the eSignature *transactions* within a program at operator, group, role or company level (configured using the **eSignature Setup** program). Electronic Signatures provide security access, transaction logging and event triggering that gives you greater control over your system changes.
- You can restrict operator access to *programs* by assigning them to groups and applying

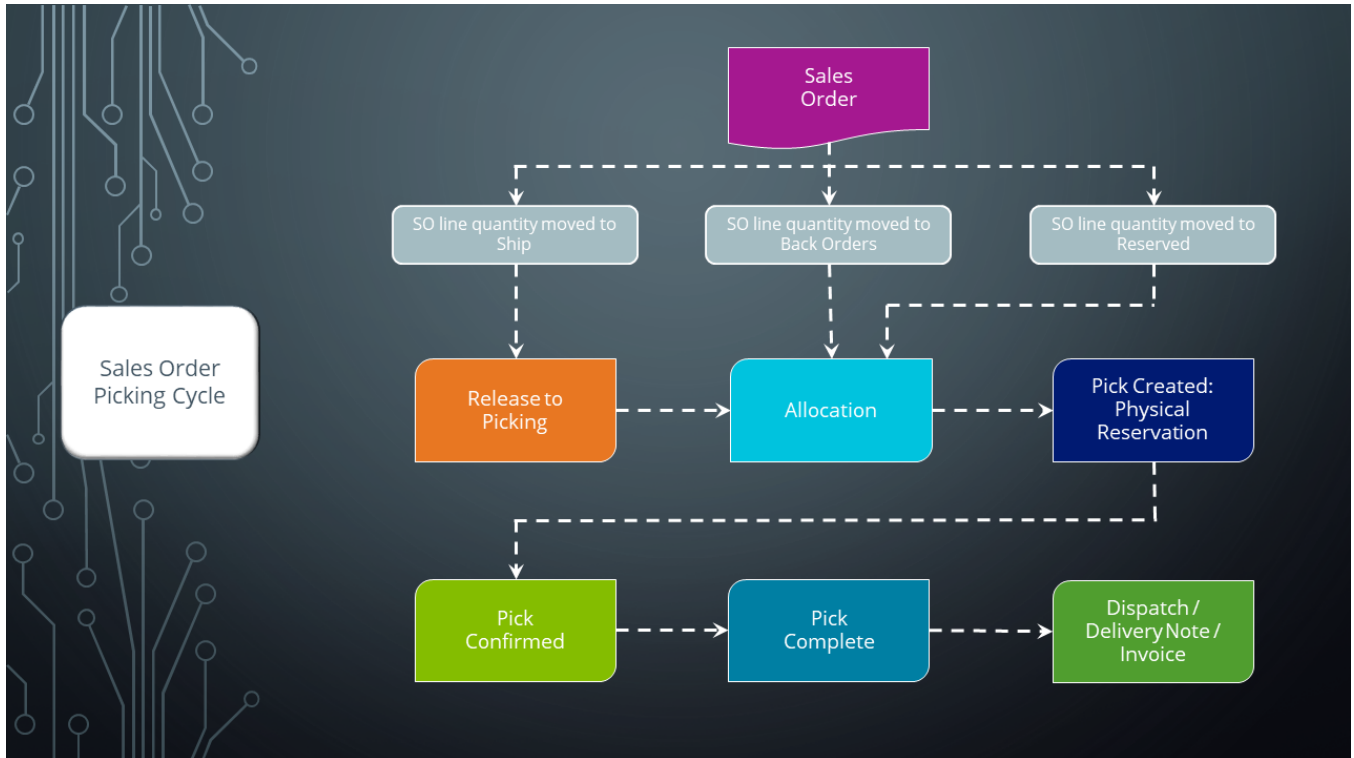


access control against the group (configured using the **Operator Groups** program).

- You can restrict operator access to *programs* by assigning them to roles and applying access control against the role (configured using the **Role Management** program).

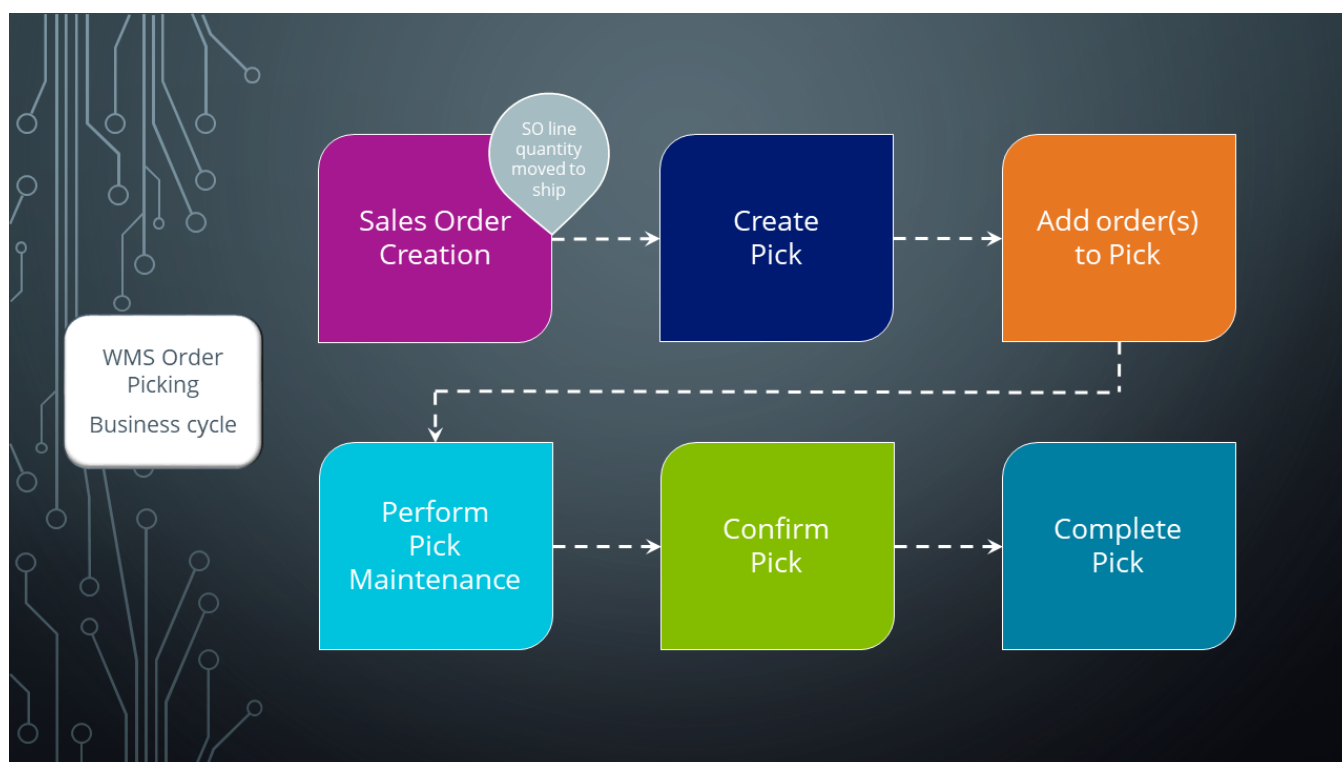
# Using

## Sales Order Picking Cycle





## Order Picking business cycle



There are many roles that perform these tasks within the overall process, each driven by specific process stages.

Process Stage	Role
Order maintenance – Create pick	<ul style="list-style-type: none"> <li>▪ Sales order clerk</li> </ul>
Back Order Release (order fulfillment) –Create pick	<ul style="list-style-type: none"> <li>▪ Sales order clerk</li> <li>▪ Warehouse manager</li> </ul>
Add order release to existing pick	<ul style="list-style-type: none"> <li>▪ Sales order clerk</li> <li>▪ Warehouse manager</li> </ul>
Monitor pick work-to-list	<ul style="list-style-type: none"> <li>▪ Warehouse manager</li> </ul>
Perform / Record pick maintenance	<ul style="list-style-type: none"> <li>▪ Warehouse clerk</li> </ul>
Cancel pick	<ul style="list-style-type: none"> <li>▪ Warehouse manager</li> <li>▪ Sales order clerk</li> <li>▪ Sales Management</li> </ul>
Confirm pick (2nd stage)	<ul style="list-style-type: none"> <li>▪ Warehouse clerk</li> <li>▪ Dispatch clerk</li> </ul>

Process Stage	Role
Complete pick	<ul style="list-style-type: none"> <li>▪ Warehouse clerk</li> <li>▪ Dispatch clerk</li> </ul>

## Affected programs

The following indicates areas in the product that may be affected by implementing this feature:

### Setup programs

#### Pick Maintenance

*Program List > Sales Orders > Picking*

This program lets you maintain picks.

#### Warehouse Maintenance

*Program List > Inventory > Setup*

The following fields have been added to the **Warehouse Maintenance** pane:

- **WMS control** section:
  - Picking cycle in use
  - Accounting for shortages
  - Lost and found warehouse

#### WHM Mission Teams Maintenance

*Program List > Inventory > Warehouse Management > Missions and Tasks > Setup*

This program lets you allocate a team to a mission.

#### WHM Team Employee Maintenance

*Program List > Inventory > Warehouse Management > Missions and Tasks > Setup*

This program lets you add and maintain the employees that form part of the teams to which missions can be allocated.

#### WHM Teams Maintenance

*Program List > Inventory > Warehouse Management > Missions and Tasks > Setup*

This program lets you add and maintain the teams that can be allocated to missions.

#### Operator Maintenance

*SYSPRO Ribbon bar > Setup > Operators*

The **Employee** field lets you link the SYSPRO operator to an employee who can be part of a team that can be allocated to a mission.

This link is required to filter the list of tasks according to the SYSPRO operator, which in turn limits the tasks the logged on Espresso operator can perform.

## Transaction Processing programs

### Sales Order Entry

*Program List > Sales Orders > Sales Order Processing*

The following field description has changed in the **Stocked Line** pane:

- **Ship quantity** becomes **Reserved quantity** when using order picking.

The following new program can be accessed when order picking is enabled:

- **SO Picking Options** (launched when ending the order with items from a picking enabled warehouse).

### Sales Order Entry Express

*Program List > Sales Orders > Sales Order Processing*

The following new programs can be accessed when order picking is enabled:

- **Pick Review** (launched when allocating sales order lines to a pick).
- **SO Picking Options** (launched when ending the order with items from a picking enabled warehouse).

### SO Picking Options

This program lets you reserve an order for picking, create a new pick or add to an existing pick.

The **Create Mission and tasks** option lets you create a mission from the sales order pick.

## Period End programs

### Whm Mission Purge

*Program List > Inventory > Warehouse Management > Missions and Tasks*

This program lets you delete completed and canceled missions, i.e. remove the mission data from the [WhmMission](#) and [WhmMissionTasks](#) database tables.

## Batch programs

### Pick Review

*Program List > Sales Orders > Picking*

This program lets you view sales order lines that have been released for picking, but not yet included in a pick.

### Lost and Found Warehouse Review

*Program List > Inventory > Cycle Counting System > Transaction Processing*

This program lets you review stock items that were placed in the lost and found warehouse during the picking process or cycle counting.

Once investigated, stock items can be adjusted or transferred to the warehouse from which it came or to another warehouse.

### Release Reserved Stock

*Program List > Sales Orders > Sales Order Processing*

The following **Include/exclude option** field has been added to the **SO Reserved Stock Review Criteria** pane:

- Lines in 'Picking' status only

## Report programs

### Mission Tasks

*Program List > Inventory > Warehouse Management > Missions and Tasks > Reports*

This report displays the information for missions as well as the tasks allocated to these.

## Query programs

### Pick Query

*Program List > Sales Orders > Picking*

This is a new program that lets you view pick header and detail lines.

### Inventory Query

*Program List > Inventory*

The following column has been added to the **Warehouse Values** list view:

- Allocated to picking

### Sales Order Query

*Program List > Sales Orders*

The following fields have been added to the **Sales Order Selection** tab when selecting **Preferences** from the **Options** menu:

- Released for picking (R)
- In picking (P)

## WHM Mission Query

*Program List > Inventory > Warehouse Management > Missions and Tasks*

This program lets you query mission and task information. The tasks associated with the mission are displayed in the list view.

## WHM Review Mission Tasks

*Program List > Inventory > Warehouse Management > Missions and Tasks*

This program lets you allocate a mission to an employee as well as review missions and tasks.

## Browse programs

### Browse on Picks

*Program List > Sales Orders > Picking > Browsers*

This program lets you view the details of picks.

### Stock Codes for Bin

This program displays the stock items that are stocked in a selected bin.

### Allocated Bins, Lots & Serials Browse

This program lets you view the lots, bin or serial allocations recorded in the **Sales Order Entry** program.

### Browse on Warehouses

*Program List > Inventory > Browsers*

The following columns have been added to the list view:

- Lost and found warehouse
- Picking cycle

### Browse on Warehouse Bins

*Program List > Inventory > Warehouse Management > Browsers*

A link to the Stock Codes for Bin program has been added to the following field in the list view:

- Bin

### SO Sales Orders

The following fields have been added to the **Include** preferences:

- In picking (P)
- Released for picking (R)

## WHM Team Browse

*Program List > Inventory > Warehouse Management > Missions and Tasks > Browsers*

This program lets you browse the teams that can be allocated to missions.

## WHM Mission Browse

*Program List > Inventory > Warehouse Management > Missions and Tasks > Browsers*

This program lets you browse all missions and displays their statuses and sources (picking, cycle-counting or inventory putaway).

## WHM Teams Employee Browse

*Program List > Inventory > Warehouse Management > Missions and Tasks > Browsers*

This program lets you view the employees that belong to a team.

# Affected business objects

## Setup objects

### WHM Mission Team Maintenance

The `WHM MISSION TEAM MAINTENANCE`<sup>1</sup> business object lets you allocate a mission to a team.

### Teams Maintenance

The `TEAMS MAINTENANCE`<sup>2</sup> business object lets you add, change and delete teams that can be allocated to missions.

### WHM Mission Team Employee Maintenance

The `WHM MISSION TEAM EMPLOYEE MAINTENANCE`<sup>3</sup> business object lets you add, change or delete employees that form part of the teams to which missions can be allocated.

## Transaction objects

### SO Release Sales Orders to Picking

The `SO RELEASE SALES ORDERS TO PICKING`<sup>4</sup> business object lets you create a new pick on the sales order line as well as add the sales order line to the existing pick.

<sup>1</sup>Business object: WHMSMT

<sup>2</sup>Business object: WHMSTM

<sup>3</sup>Business object: WHMSTE

<sup>4</sup>Business object: SORTPN

## SO Pick Status Change

The `SO_PICK_STATUS_CHANGE`<sup>1</sup> business object lets you change the status of a pick from open to confirm, cancel or complete. It also changes the pick line status.

## Query objects

### SO Pick Query

The `SO_PICK_QUERY`<sup>2</sup> business object lets you query sales order pick lines, including the quantity that is in picking, the sales order line that is attached to this pick, and the status of each pick line.

### SO Pick Search Query

The `SO_PICK_SEARCH_QUERY`<sup>3</sup> business object lets you query the details lines of a pick.

### SO Pick Quantity Review

The `SO_PICK_QUANTITY_REVIEW`<sup>4</sup> business object lets you query sales orders that have been reserved for picking and displays the corresponding ship quantity.

### WHM Mission Query

The `WHM_MISSION_QUERY`<sup>5</sup> business object lets you query a mission and the tasks associated with that mission from the [WhmMission](#) table.

### WHM Missions Query

The `WHM_MISSIONS_QUERY`<sup>6</sup> business object lets you query the missions in the [WhmMissionTasks](#) and [WhmMission](#) tables and displays their statuses and sources (picking, cycle-counting or inventory putaway). It is called from the **WHM Review Mission Tasks** program and loads the results in the list view.

### WHM In Progress Missions Query

The `WHM_IN_PROGRESS_MISSIONS_QUERY`<sup>7</sup> business object lets you query all missions from the [WhmMission](#) table that are still in progress (i.e. missions that are not canceled or completed).

<sup>1</sup>Business object: SORTPS

<sup>2</sup>Business object: SORQPN

<sup>3</sup>Business object: SORQSP

<sup>4</sup>Business object: SORRPB

<sup>5</sup>Business object: WHMQMS

<sup>6</sup>Business object: WHMQSM

<sup>7</sup>Business object: WHMQPM



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