

**SOP SETTING UP WAREHOUSE  
MANAGEMENT WMS PICK**

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# SOP SETTING UP WAREHOUSE MANAGEMENT WMS PICK

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## AIM

To set up definitions required for working with *Priority's* WMS Pick module.

## WORKING ASSUMPTIONS

- The company from which the WMS module is being run has been flagged as the WMS Company in the Companies form.
- Warehouses have been set up in the Warehouses form (see the relevant standard operating procedure), the default 0 bin is defined in each warehouse, and warehouses have been flagged in the AutoShip Pack Crates column in the WMS tab.
- The AutoShip Pack Crates column in the Shipments tab of the Customers form has been flagged for all customers for which you will be opening shipping documents/sales invoices from pick tasks that conclude with a packing slip.
- Task numeration has been set up in the Warehouse Task Templates form.
- Pallet numeration has been set up in the Pallet Number Templates form.
- Label numeration has been set up in the Label Templates form.
- Separators (e.g., period or hyphen) have been defined for use in bin numeration, either by means of the IBinSeparate constant (in the Logistic Constants form) or in the Separators for Warehouse Bins form.
- Bin types have been defined in the Bin Types form.
- Shipping pallets have been defined in the Shipping Pallets form.
- The following constants have been set up in the Logistic Constants form:
  - IVolumeCoef – The coefficient that is used to calculate volume. This is the ratio between the product of dimensions (length, width and height) that are measured in the "std length unit" and a volume measured in the "std volume unit". The default is 1,000,000. Note: In the Financial Parameters for Parts and Bin Types forms, after recording an item's length, width and height, the volume is calculated automatically by multiplying these three values and then dividing the result by this value. For example, for an item with the dimensions 100x100x100, and given the default value for this coefficient, the volume in the "std volume unit" is 1.
  - SCratesQuant – Determines whether, when recording a shipping document based on packing slips, the contents of the packing crates (including quantities) are automatically approved for inclusion in the document.
  - IPickByCrate – Determines whether parts should be picked by crate or by individual units. Either the Planned Crate Qty or Planned Qty column will be filled in automatically in warehouse tasks that are created by pick waves, depending on the value of this constant. Note: The constant only affects those parts that are flagged as Pick by Crate (in the Part Catalogue form).
- A master crate has been flagged as Master in the Packing Crate Types form. This defines a crate which can be assigned as the Master Crate Code for a regular crate.
- A default packing crate code has been defined for relevant parts in the Crate Type Code column of the Inventory Parameters for Parts form.
- Possible reasons have been defined in the Reasons for Pick/Put Exceptions form.

- A primary weight unit has been defined by running the Flag Primary Weight Unit program.
- Warehouse employees (e.g., storekeepers, pickers, forklift operators) have been defined as system users and assigned the necessary privileges to work in the WMS module and to create inventory documents in the Inventory Control module.
- The relevant employee is flagged as a Main Warehs Employee in the Company-Specific Information sub-level of the Personnel File form.
- The appropriate print program and print format are defined in the Inv. Transaction Documents form. The inventory documents that are prepared at the conclusion of the tasks will be printed using these definitions.

## PROCEDURE

### STAGE ONE: ASSIGNING A TASK TEMPLATE TO A WAREHOUSE

1. Enter the Warehouses form.
2. Retrieve the relevant warehouse (one with a 0 bin).
3. In the WMS tab, specify the Template used to number tasks created for this warehouse.
4. Specify the Label Template used to number labels created for inventory documents associated with this warehouse.

### RESULT

Tasks created for this warehouse (either manually or automatically), as well as labels created for inventory documents associated with this warehouse, will be numbered according to the defined templates.

### STAGE TWO: DEFINING STORAGE ZONES

1. Enter the Storage Zones form.
2. For each zone, specify the Warehouse in which the current storage zone is located.
3. Fill in the Storage Zone and Zone Description columns.
4. For each zone, fill in the appropriate values and flag the appropriate columns:
  - Velocity – Select the default part velocity of new bins in this zone.
  - Unloading Deck – Select the unloading deck in this warehouse that is assigned to this zone.
  - Main Zone – Flag this column if this zone is used to group together a number of secondary storage zones.
  - Unloading Deck – Flag this column if this zone is used to receive incoming goods.
  - Main Unloading Deck – Flag this column if this is the default unloading deck assigned to GRVs that are recorded for the current warehouse.
  - Loading Deck – Flag this column if this is the zone from which goods are shipped.
  - Returns – Flag this column if this zone is used for returned goods. Note: When a sales invoice is cancelled, goods are transferred to the returns zone and not to the bin from which they were originally picked.
  - Bin Control – Flag this column if this zone is used mainly for storage.

5. If this zone is defined as a Main Zone, enter the Secondary Zones sub-level form to define its secondary zones. For each secondary zone:
  - In the Order column, indicate the order in which the secondary zone will be included in system recommendations when creating a wave of warehouse tasks for the current main zone.
  - In the Grouping column, assign the same number to secondary zones that should be included together in a single warehouse task, provided there is no other reason to split them into separate tasks (e.g., different pallets). Secondary zones with a unique grouping will be assigned a separate task.
6. Enter the Aisles in Storage Zone sub-level form and define the aisles in this storage zone.

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### STAGE THREE: DEFINING BIN TYPES

1. Enter the Bin Types form.
2. For each type of warehouse bin, define a Bin Type Code and Bin Type Description. Specify the Maximum Weight and Maximum Volume that can be stored in bins of this type, and/or the Maximum Qty.
3. If bins of this type include pallets, flag the Pallet Control column and specify the appropriate Maximum No. Pallets. If bins of this type are only used to store one type of pallet, specify the Pallet Type Code.

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### STAGE FOUR: DEFINING WAREHOUSE BINS

1. Enter the Warehouses form and retrieve the relevant warehouse with a 0 bin.
2. Enter the Storage Zones in Warehouse sub-level form and move to the line for the desired storage zone.
3. Enter the Bins in Storage Zone sub-level form.
4. Indicate the Aisle, Row, Level and Slot in which the bin is located. A Bin code is filled in automatically.
5. Specify the Velocity of inventory stored in this bin (A – fast, B – medium or C – slow).
6. In the Pick Order and Put Order columns, indicate the order in which this bin will be included in system recommendations for warehouse tasks created for this warehouse and storage zone.
7. Specify the appropriate Bin Type Code. Additional columns (such as Pallet Control, Maximum No. Pallets, Pallet Type Code, Maximum Weight and Maximum Volume) are filled in automatically, based on the attributes defined for the specified bin type in the Bin Types form.
8. If the bin is used to store crates (C) or master crates (M), specify the appropriate value in the Storage Type column. As a result, the pick algorithm will recommend whole multiples of the contents of the relevant crate (either the part's default crate or its master crate, respectively) from the available inventory in the bin.
9. In the Report Display Order column, you can indicate the order in which the current bin will appear in various reports (bins with a lower number appear first).
10. If the current bin is linked to a specific project, specify the Project Number.

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### STAGE FIVE: TASK TYPE DEFINITIONS (PIK AND SHP) FOR SPECIFIC CUSTOMERS

1. Enter the Target Doc per Task Type/Cust. form.

2. Specify the customer in question.
3. Choose a Warehouse Task Type (PIK or SHP).
4. In the Document Code column, select the type of inventory transaction document to be prepared upon the completion of tasks of that type that were opened for the customer in question.

#### RESULT

When the Prepare Documents program is run for a PIK or SHP task opened for this customer (via a mobile device or by Direct Activation from the Warehouse Tasks form), the appropriate target document will be opened. This definition overrides the general task type definitions recorded for the task type in the Warehouse Task Types form.

#### STAGE SIX: DEFINING CARGO TRANSPORT TYPES

1. Enter the Cargo Transport Types form.
2. For each type of transport, specify a Transport Type Code, Transport Type Desc. and indicate the Maximum Level that can be reached by this transport type.
3. For transport types that include a forklift, flag the Forklift column and define the Maximum Volume of goods that can be transported using this transport type.

#### STAGE VII: DEFINING A MEANS OF TRANSPORT

1. Enter the Means of Transport form.
2. For each means of transportation, specify a Transport Code and assign the appropriate Transport Type Code.
3. If necessary, you can also define a License Number and/or indicate that this means of transport is Not in Use.

#### RESULT

- When a warehouse task receives the "Execute" status, the system assigns it the most appropriate means of transport available, based on transport type definitions:
  - In tasks involving palletted goods, the system automatically assigns a forklift that can reach the level in question.
  - In tasks involving goods that are not palletted, the system automatically assigns a means of transport with the lowest possible capacity that can handle the volume of goods to be transported and can reach the level in question.

#### STAGE EIGHT: DEFINING PALLET TYPES

Aim: To define pallet types and assign them a numeration template.

1. Enter the Pallet Types form.
2. For each type of pallet, specify a Pallet Type Code, Pallet Type Desc. and indicate the maximum loaded Weight of a pallet of this type.
3. Specify a Template to be used when assigning pallet numbers to new pallets of this type.
4. Flag one pallet type as the Initial Pallet Type. This will serve as the default type for all new pallets, even those that are opened via a mobile device.

## RESULT

Pallet numbers are generated automatically based on the template assigned to the relevant pallet type.

## STAGE NINE: SETTING DELIVERY DEFINITIONS FOR SPECIFIC CUSTOMERS

**Aim:** To define the type of document to be sent to specific customers when delivering the picked goods (a sales invoice or a shipping document).

1. Enter the Financ. Parameters for Customers form and retrieve the customer in question.
2. Click the Invoices tab. Flag the Delivery with Sales Inv column (to send a sales invoice), or leave this column blank to send picked goods with a shipping document and later bill the customer with a multi-shipment invoice.
3. If you want orders to be delivered with sales invoices only up until a particular day of the month, indicate the day in question in the To Day of Month column.

**Note:** If the Delivery with Sales Inv column is not flagged or if the designated day of the month has already passed, shipping documents will be opened instead.

## STAGE TEN: DEFINING PICK STRATEGIES

**Aim:** To define the strategy used when picking goods, setting the algorithm which determines the order of operations in pick waves.

1. Enter the Pick Strategy form.
2. Specify the Strategy Code and Strategy Description.
3. Flag the By Crates column to pick master crates before regular crates, and regular crates before individual units (algorithm 222).
4. Flag the Linked Wk Ords Only column if, when picking inventory managed by work order, you want to pick only work orders linked to a line in a sales order (as defined in the work order).
5. Flag the Create Log column to create a log which will assist in analysing inventory movements created when running pick waves with this strategy. You should flag this column only if you intend to run the Inventory Movement report to clarify wave results.
6. Flag the Hot Replenishment column to simultaneously create replenishment tasks for fast bins that are included in pick tasks created by the pick wave.

**Note:** A full explanation on the subject can be found in the Setting Up Hot Replenishment SOP.

7. Flag the Ignore Cust Strategy column in order for this strategy to override the one defined for the customer.

**Note:** This does not affect the sort algorithm for the order (see step 9 below), which is always taken from the pick strategy defined for the wave.

8. In the Pick Algorithm sub-level form, customise the algorithm as needed:
  - Use the Order column to specify the sequence of steps involved in selecting inventory for picking. A step with a lower number will be performed before a step with a higher number.
  - Add a check mark to the Reverse column if you want to reverse the condition. For example, flag Reverse in Step 14 to pick palletted goods before non-palletted goods.
  - If a step is not relevant, flag the Not in Use column.
9. In the Sort Algorithm - Order Items sub-level form, define the order in which items should be handled when the wave includes more than one order item:
  - Use the Order column to specify the priority given to sorting the order items. A step with a lower number will be performed before a step with a higher number.
  - Add a check mark to the Reverse column if you want to reverse the condition.
  - If a step is not relevant, flag the Not in Use column.

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## STAGE ELEVEN: ASSIGNING A TASK SPLIT METHOD AND A PICK STRATEGY TO A CUSTOMER

Aim: To define the default method of splitting tasks and the default pick strategy for specific customers.

1. Enter the Customers form and retrieve the customer in question.
2. In the Shipments tab, specify the desired task split method in the WMS Task Split Method column.

**Note:** The task split method defined for this customer overrides the one defined for the wave. For example, if a customer's task split method is "By Individual Order", and the task split method for a pick wave is "By Customer", the wave will open a separate pick task for each of the customer's orders rather than a single pick task combining all the customer's orders.

3. Select the default Pick Strategy for the customer. The pick strategy determines the pick order of the selected order items (e.g., it might determine that the part in the work order intended to fill the order will be picked before parts in other work orders).

**Note:** This default pick strategy for the customer overrides the definition in a given wave unless the Ignore Cust Strategy column is flagged during program input.

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## STAGE TWELVE: DEFINING WORK WITH MOBILE DEVICES

1. Open the Mobile Device Screens form, and set up the appropriate device screens.
2. For each screen, define the users that are authorised to use it in the Users authorised for Screen sub-level form, including the Main Warehs Employee (as defined in the

Company-Specific Information sub-level of the Personnel File form; see "Working Assumptions").

3. Define the permitted storage zones for the main warehouse employee in the next sub-level, Authorized Zones.

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#### RESULT

On the mobile device, all users will see those warehouse tasks assigned to the main warehouse employee performed in storage zones for which that employee is authorised.

#### PROCESS SUMMARY

- Warehouses and warehouse bins have been defined, enabling you to maintain inventory data for each bin, and indicating which bin should be used for a given warehouse task.
- Storage zones have been defined, including the types of goods stored in each zone. These definitions affect the pick and put order in the warehouse, as well as warehouse task planning.