

LOADS AND SHIPMENTS AND WAVES, OH MY!

This blog series will cover scenarios which represent several common practices used in today's warehouses. These scenarios will illustrate how key D3650 Warehouse Management concepts and configuration considerations are used to enable the desired process design to meet the most simple and complex requirements.

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Part 3 of 3 –
Multiple
Shipments: One
Load to multiple
Shipments and
sales orders

Loads and Shipments and Waves, Oh My!

Part 3 of 3 – Multiple Orders: One Load to multiple Shipments and sales orders

Manual Process

In this scenario, multiple sales orders for multiple customers have been created. We will first create a load for each customer delivery and release it to the warehouse. Shipments and waves will thus be created, and processed. We will then combine each load into a single load for a single multi-stop delivery.

To manually create and combine loads, no configuration changes will be made from the previous scenario. We will simply not release the order to the warehouse and manage the orders from the Load Planning Workbench. However, the load consolidation can occur after release to warehouse. Refer to automated process in [Part 2](#). For demonstration purposes, we will use the Load Planning Workbench Method.

We will first create loads using the Load Planning workbench as we did in part one. However, later in the process we will combine the loads into a single load.

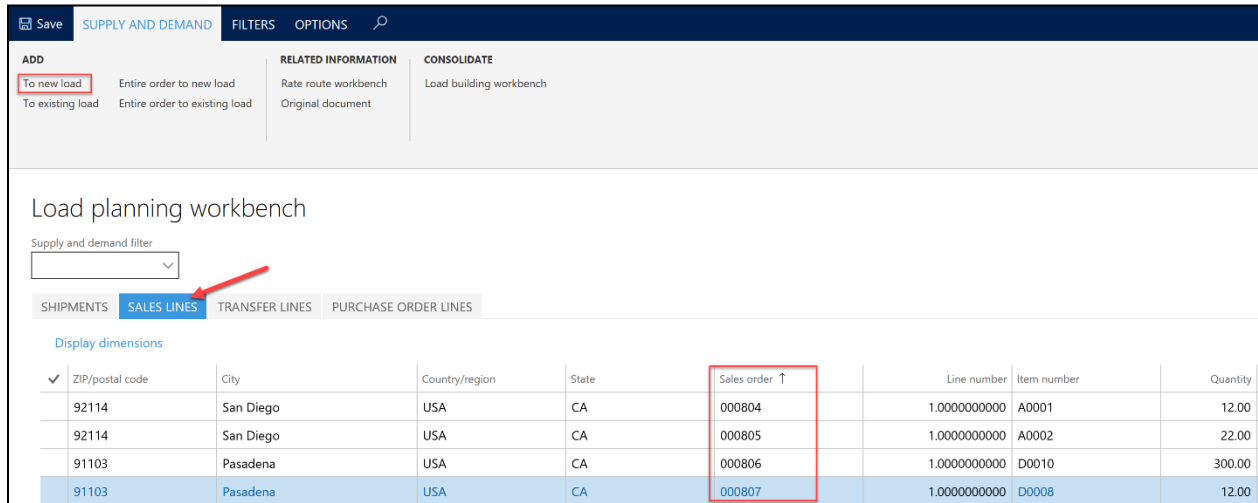
1. First we will go the Load Planning Workbench in Warehouse Management>Loads. Here, in the Sales Lines tab, the lines of the sales orders that are not assigned to a load are displayed.



Scenario Summary



As anyone with even a little experience in D365O or any other version of Dynamics AX knows, there are many ways to perform certain tasks in the system. This is especially true with the functionality covered in the short blog series. Not only are the demonstrated methods effective, but there are other ways to achieve the same result. Throughout this series, manual and automated functionality were shown. While the automated functionality is efficient, it cannot be effective unless all the components of the process are fully understood. As mentioned earlier, even with an automated configuration, it is vital the manual processes are known and all key concepts are understood to successfully manage a warehouse.



Save SUPPLY AND DEMAND FILTERS OPTIONS

ADD

To new load Entire order to new load RELATED INFORMATION CONSOLIDATE
 To existing load Entire order to existing load Rate route workbench Load building workbench
 Original document

Load planning workbench

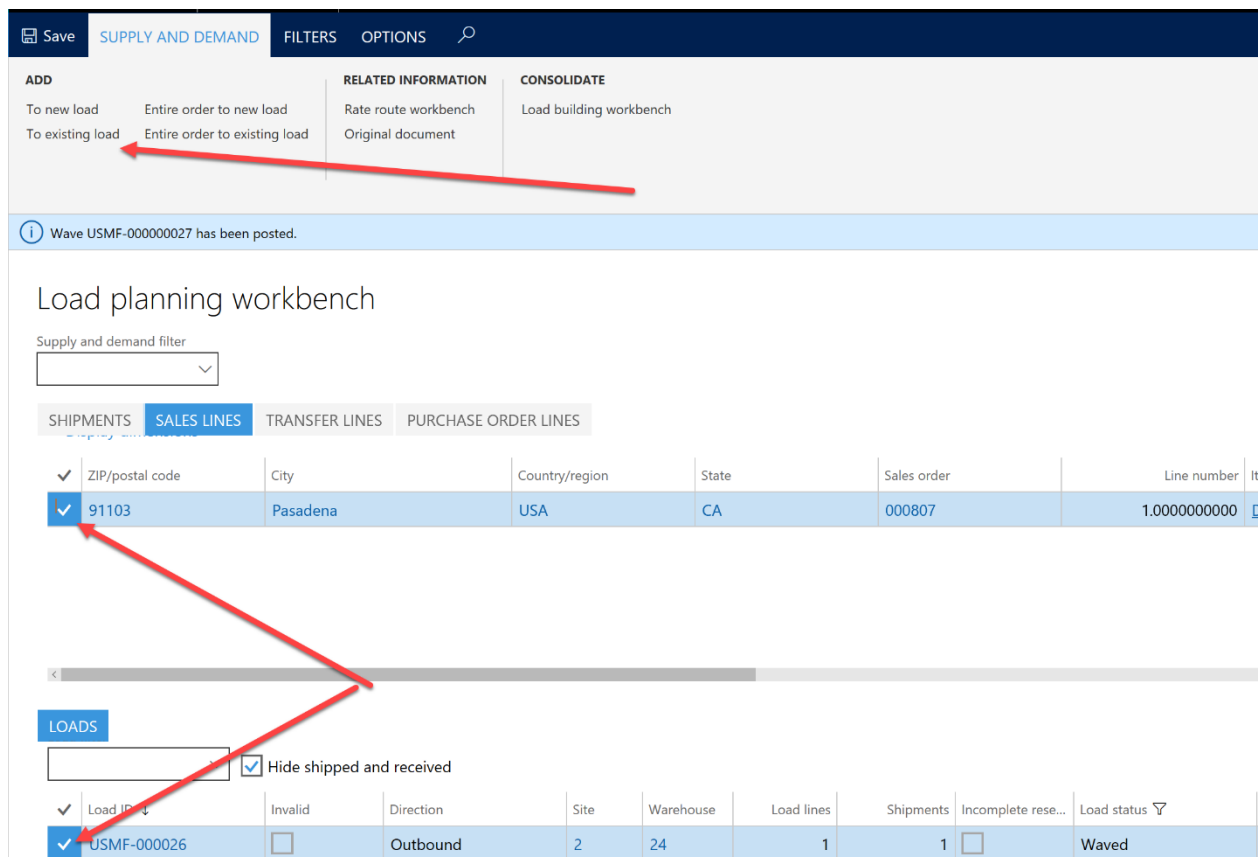
Supply and demand filter

SHIPMENTS **SALES LINES** TRANSFER LINES PURCHASE ORDER LINES

Display dimensions

ZIP/postal code	City	Country/region	State	Sales order ↑	Line number	Item number	Quantity
92114	San Diego	USA	CA	000804	1.0000000000	A0001	12.00
92114	San Diego	USA	CA	000805	1.0000000000	A0002	22.00
91103	Pasadena	USA	CA	000806	1.0000000000	D0010	300.00
91103	Pasadena	USA	CA	000807	1.0000000000	D0008	12.00

1a. To add a line to an existing Load, select the line and the Load to add the line to and select ADD>To Existing Load.



Save SUPPLY AND DEMAND FILTERS OPTIONS

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To new load Entire order to new load RELATED INFORMATION CONSOLIDATE
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Wave USMF-000000027 has been posted.

Load planning workbench

Supply and demand filter

SHIPMENTS **SALES LINES** TRANSFER LINES PURCHASE ORDER LINES

ZIP/postal code	City	Country/region	State	Sales order	Line number	It
91103	Pasadena	USA	CA	000807	1.0000000000	

LOADS

Hide shipped and received

Load ID ↓	Invalid	Direction	Site	Warehouse	Load lines	Shipments	Incomplete rese...	Load status ▾
USMF-000026	<input type="checkbox"/>	Outbound	2	24	1	1	<input type="checkbox"/>	Waved

1b. Select the lines for each load and click ADD>To New Load. Select a load template and click OK. Repeat as necessary. For this demo, a load will be created for each customer.

Load template assignment

Load template ID: **20' Container** (indicated by a red arrow)

Update scheduled load ship date and...: Yes

Reference	Order number	Item number
Sales order	000804	A0001
Sales order	000805	A0002

- The lines are now part of Loads and can now be released to the warehouse. Note the load status of the newly created loads is Open. Once released the status changes to POSTED as shipments and waves have been created. If the wave templates were set to automatically process and release, this status would be WAVED.

Load planning workbench

Supply and demand filter: []

SHIPMENTS SALES LINES TRANSFER LINES PURCHASE ORDER LINES

Display dimensions

Region	State	Sales order	Line number	Item number	Quantity	Inventory unit	Packing quantity
	CA	000807	1.0000000000	D0008	12.00	ea	50.00

LOADS

Load filter: []

VALIDATE
Validate load

RELEASE
Release to warehouse (indicated by a red arrow)

Release errors

Load ID	Direction	Site	Warehouse	Load lines	Shipments	Incomplete rese...	Load status
USMF	Outbound	2	24	2	0	<input type="checkbox"/>	Open
USMF	Outbound	2	24	1	0	<input type="checkbox"/>	Open
USMF	Outbound	2	24	3	1	<input type="checkbox"/>	Posted

- Now that the order has been released, let's imagine the warehouse manager decides that both new load will fit on one truck. This means we need to combine the loads. (Since the waves have not been processed, there is no existing work. Had they been processed, we would need to simply cancel all the associated work.)
- To combine the two loads, you can either delete one of the loads and add it to the other in the load planning workbench as shown in Step 1 or add one of the *shipments* to the other *load*. For demonstration purposes, we will add the shipment to the other load.

To do this go to All Shipments and select the shipment(s) to move to another load then click "Transfer Shipment to existing load". Then select the load to add it to and click OK.

The screenshot shows the Dynamics 365 Operations interface for 'All shipments'. The top ribbon includes buttons for 'SHIPMENTS', 'TRANSPORTATION', and 'OPTIONS'. The 'SHIPMENTS' ribbon has a button for 'Transfer shipment to existing load'. A red arrow points from this button to a dropdown menu in the right-hand pane, which is titled 'Transfer shipment to existing load'. The dropdown menu shows 'Load ID' with 'USMF-000028' selected. Another red arrow points from the 'USMF-000028' shipment in the main table to the dropdown menu.

5. Now both shipments are on the same load.

The screenshot shows a close-up of the 'All shipments' table. A red arrow points to the 'Load ID' column for the shipment 'USMF-000028', which is 'USMF-000028'.

Shipment ID	Ship...	Wave ID	Load ID
USMF-000028	Open	USMF-00000028	USMF-000028
USMF-000027	Open	USMF-00000028	USMF-000028

6. When creating a multi-stop load, be sure to confirm the stop number for each shipment to allow the truck to be loaded correctly. This will prevent delivery personnel from having to unload items for a later stop to get to the items for the current stop.

The screenshot shows the 'SHIPMENT DETAILS' for 'USMF-000028'. A red arrow points to the 'Stop number for loads' field, which is set to '1'.

INFORMATION		DATES	
Shipment ID	USMF-000028	Shipping confirmation date and time	
Shipment status	Open	Drop off date	3/24/2017
Load ID	USMF-000029	Drop off date time	
Wave ID	USMF-00000028	Pick up date	3/23/2017
Direction	Outbound		
Volume	0.00		
Weight	661.20		

7. At this point the wave can be processed, released. The work can then be executed and the items shipped as with the previous scenarios. For purposes of this demonstration, the process is complete.

Summary:

As anyone with even a little experience in D3650 or any other version of Dynamics AX knows, there are many ways to perform certain tasks in the system. This is especially true with the functionality covered in the short blog series. Not only are the methods demonstrated effective, but there are other ways to reach the same result. Throughout this series, manual and automated functionality was shown. While the automated functionality is efficient, it cannot be effective unless all the components of the process are fully understood. As mentioned earlier, even with an automated configuration, it is vital the manual processes are known and all key concepts are understood to successfully manage a warehouse.