

# VXL Template

## DO Creation

User Instruction

17/01/2023

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## Version Control

Version	Date	Changed by	Comments
V1	12/14/22	N/A	N/A

## 1 Why VXL Templates?

In general, the purpose of a VXL template is to give our customers a good starting point in relation to data maintenance within a specific area in M3. A predefined VXL template can work for the customer exactly as it is but can also lack specific data or provide more data beyond what the customer maintains. The idea is that customers have the VXL template as a starting point and can themselves make the necessary small adjustments to make it perfect for their own needs.

## 2 What will it solve?

The purpose of this VXL template is to save time and cost on Distribution Order creation by importing multiple Distribution Orders from a single Excel spread sheet in to MMS100 in M3.

## 3 How does it work?

This function has two tasks. One export from M3 to excel and one import task from Excel to M3.

Export from M3 to Excel

- This export task is configured to help validate the Upload data entered in the spread sheet before running imports to create distribution orders. This validation retrieves item and warehouse data from MMS002 – Item /Warehouse.

Import from Excel to M3

- You can import multiple distribution orders into M3 MMS100 with just one click.
- The import uses APIs from the MHS850MI interface

## 4 Where can you find the VXL Template?

This template is installed in the Vince Template Company on the VXL server. The function is named "TEMPL\_DO\_Creation"

## 5 Limitations

To run this function, an initial setup must be made in M3. This is described in chapter 7.

## 6 Recommendations

- This function is configured using the grouping functionality. If you want to learn more about this, see VXL Tutorial Video no. 12 for more information.
- If you would like to do any changes to the template, we recommend that you copy the function in the VXL server and do the changes on the copied function.
- This VXL template has not been tested in depth by Vince, so we recommend testing this thoroughly in the M3 test environment before this is lifted to the M3 production environment.

## 7 M3 Setup

To be able to run this function against M3, the following setup must be done.

### 7.1 Set up a Stock Msg partner in MMS865

Start MMS865 and enter the data shown below and create new stock message partner.

Whs	Msg	Partner	Msg tp	Appl ref	Access reference
<input type="text"/>	I	VINCE	WMS	VINCE	VINCE

In MMS865/E enter the data as shown below:

(Except for parameter 300. Here partner manager must be replaced with a user from your company)

**Panel Header**

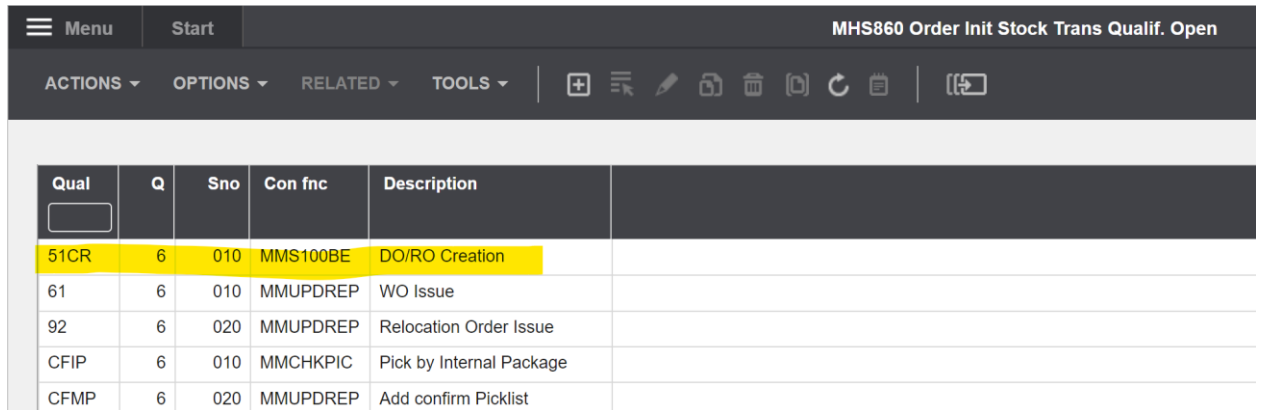
Warehouse:   
Msg direction: I-Input  
Msg type: WMS  
Access ref: VINCE  
Partner: VINCE  
Appl reference: VINCE

**Details**

300 Partner manager: NILPALO  
305 Override mail receiver: 0-No  
310 Overriding mail receiver:   
235 Filing:   
240 Days before filing/deletion:   
320 Default item type:

## 7.2 Transaction qualifier 51CR

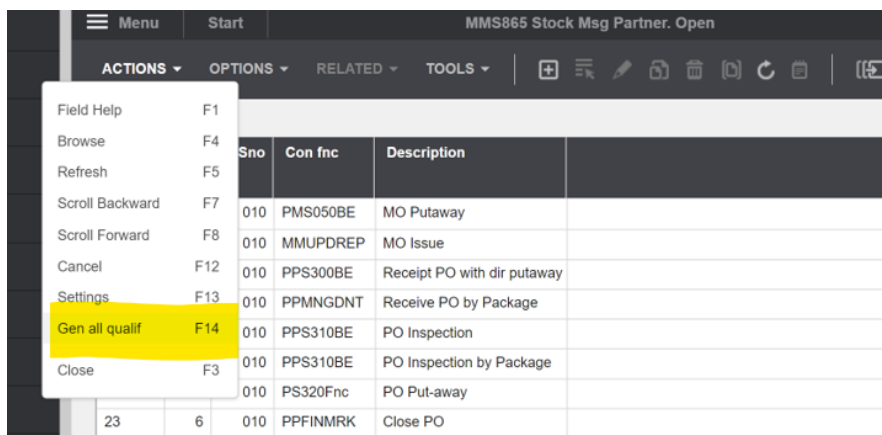
A transaction qualifier need to exist in MHS860. Check if it does in your environment.



The screenshot shows the SAP MHS860 Order Init Stock Trans Qualif. Open screen. The table below lists the transaction qualifiers:

Qual	Q	Sno	Con fnc	Description
51CR	6	010	MMS100BE	DO/RO Creation
61	6	010	MMUPDREP	WO Issue
92	6	020	MMUPDREP	Relocation Order Issue
CFIP	6	010	MMCHKPIC	Pick by Internal Package
CFMP	6	020	MMUPDREP	Add confirm Picklist

If qualifier 51CR does not exist, then generate it by clicking "Actions" and "Gen all qualif F14"



The screenshot shows the SAP MMS865 Stock Msg Partner. Open screen. The 'Actions' menu is open, and the 'Gen all qualif F14' option is highlighted. The table below shows the data for the 'Gen all qualif F14' action:

Sno	Con fnc	Description		
010	PMS050BE	MO Putaway		
010	MMUPDREP	MO Issue		
010	PPS300BE	Receipt PO with dir putaway		
010	PPMNGDNT	Receive PO by Package		
010	PPS310BE	PO Inspection		
010	PPS310BE	PO Inspection by Package		
010	PS320Fnc	PO Put-away		
23	6	010	PPFINMRK	Close PO

## 7.3 Create API to retrieve DO number

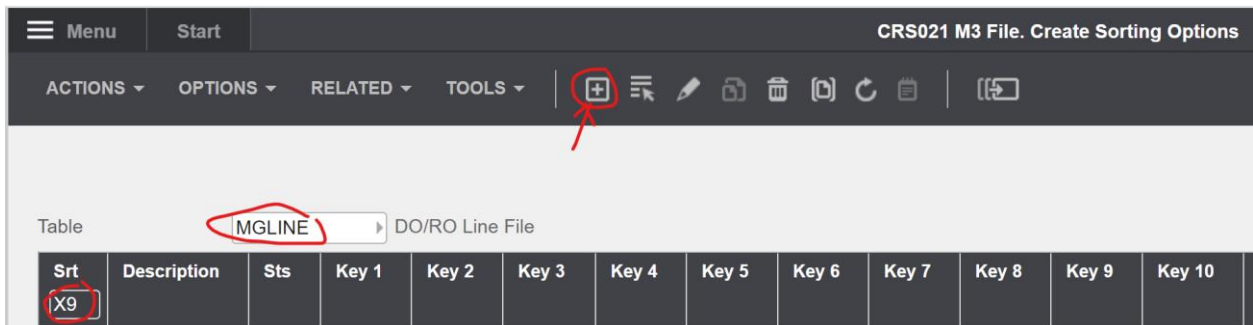
An API must be created to receive DO number when importing distribution order.

### 7.3.1 Create Sorting option

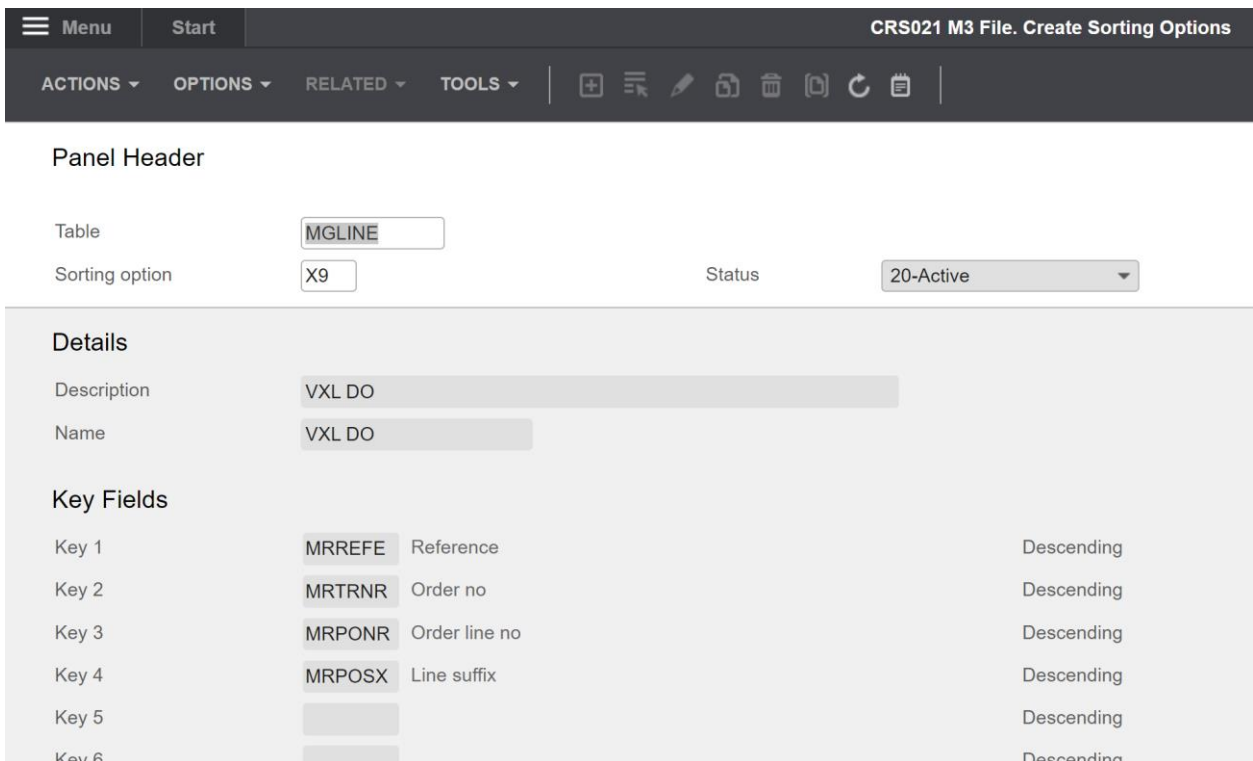
Open CRS021 - Sorting Options

For the Table MGLINE, create a sorting option X9 in CRS021

If option X9 is already used, create a new one that does not exist.



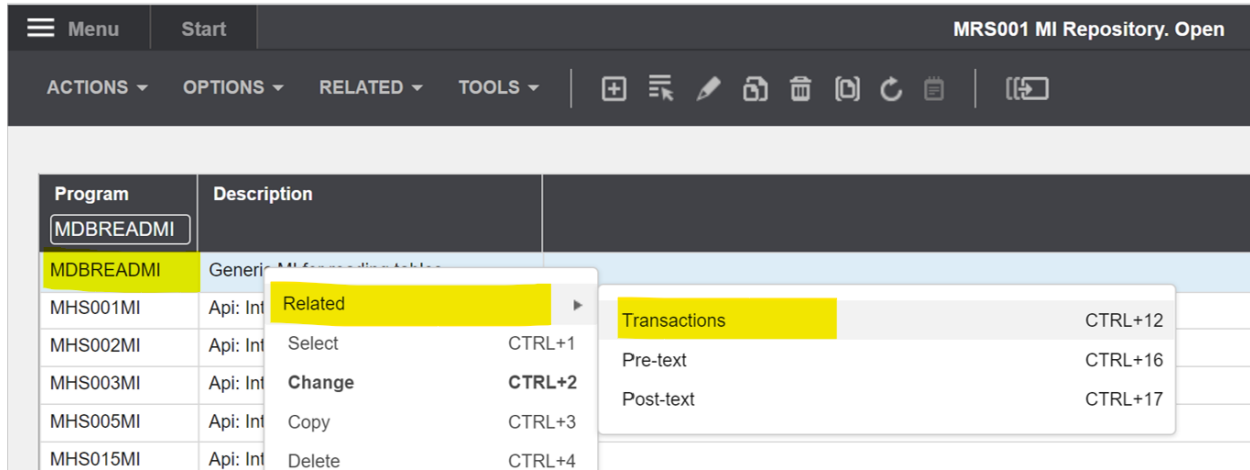
Set the Key fields as shown below:



### 7.3.2 Create the MDBREAD API transaction "GetMGLINEX9"

Open MRS001 MI Repository

Search for MDBREADMI and select related and Transactions



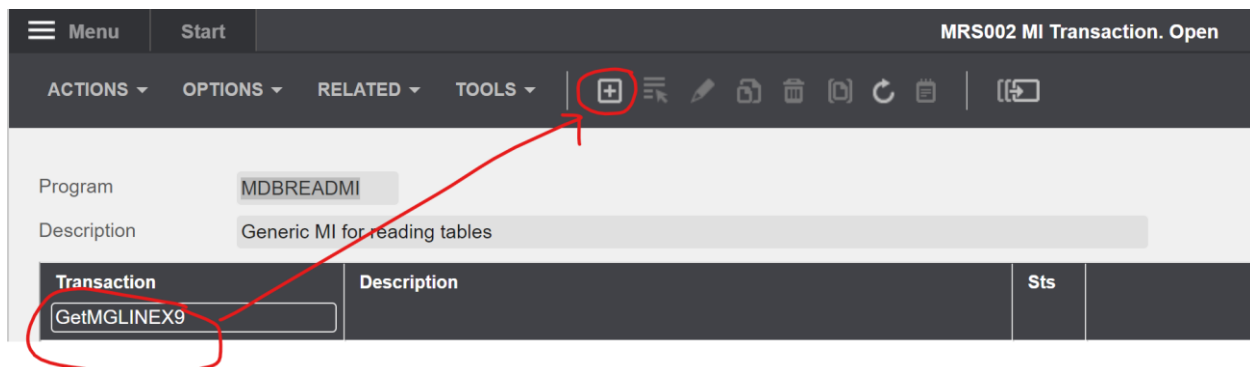
Create a new MDBREAD API transaction by entering GetMGLINEX9 in the field "Transaction" and click "+" to create.

IMPORTANT:

If the sorting option you created in chapter 7.3.1 was not X9, then you have to replace X9 in GetMGLINEX9 with the sorting option id you created (for example GetMGLINEU8)

AND then you also need to replace the API GetMGLINEX9 for the Task "Get DO Number" in the VXL configurator with your API transaction (for example GetMGLINEU8).

This must be done after the API transaction is created and the MI-repository is updated from M3 to VXL (described later in the document).



Set the parameters as shown below and click "Next"

**Panel Header**

Program: MDBREADMI  
 Name: Generic MI for reading tables  
 Transaction: GetMGLINEX9  
 Description: Keys: REFE

**Details**

Version: 1      Status: 10-Preliminary  
 Prefix: Q0 Y0      Single/multiple: S-Single

Create a new input field by enter the settings as shown below and click "+" to create.

**MRS003 MI Transaction Layout. Open**

Transaction: GetMGLINEX9  
 Description: Keys: REFE

Name	Frp	Tps	Lngth	Ftp	Res	Reference
REFE	15		30	A	1	Reference

Click F3 and go all the way back to MRS002/B1  
 Right click your new API transaction and select related and "Fields out"

**MRS002 MI Transaction. Open**

Program: MDBREADMI  
 Description: Generic MI for reading tables

Transaction	Description	Sts
GetMGLINEX9	Keys: REFE	10
GetMITBAL00	Keys: WH	
GetMITBAL0001	Keys: WH	
GetMITBAL10	Keys: ITN	
GetMITFAC00	Keys: FAC	
GetMITFAC0001	Keys: FAC	

Context Menu:

- Fields in (CTRL+11)
- Pre-text (CTRL+16)
- Post-text (CTRL+17)
- Fields out (CTRL+12)**



Create a new output field by enter the settings as shown below and click "+" to create.

MRS003 MI Transaction Layout. Open

Transaction: GetMGLINEX9

Description: Keys: REFE

Name	Frp	Tps	Length	Ftp	Res
TRNR	16		10	A	Order no

Click F3 and go all the way back to MRS002/B1  
Right click your new API transaction and click "Change"

MRS002 MI Transaction. Open

Program: MDBREADMI

Description: Generic MI for reading tables

Transaction	Description	Sts
GetMGLINEX9	Keys: REFE	10
GetMITBAL00	Related	20
GetMITBAL0001	Select CTRL+1	20
GetMITBAL10	Change CTRL+2	20

Then set the status = 20 and click "Next"

Now you are done with creating the new MDBREAD transaction that wil return the DO number after importing DO's from Excel to M3. Click F3 to close the program.

MRS002 MI Transaction. Open

**Panel Header**

Program: MDBREADMI

Name: Generic MI for reading tables

Transaction: GetMGLINEX9

Description: Keys: REFE

**Details**

Version: 1

Status: 20-Active

Prefix: Q0 Y0

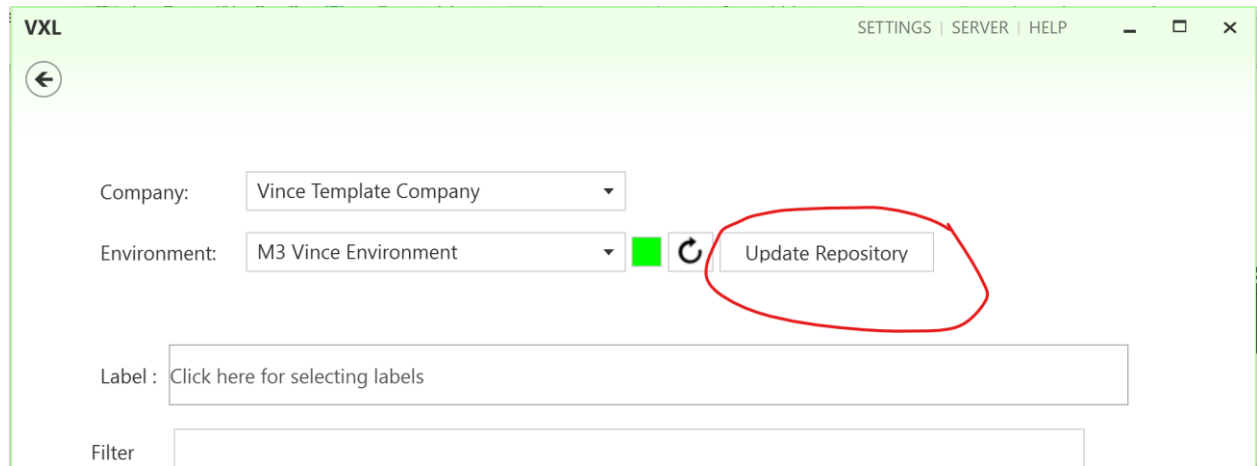
Single/multiple: S-Single

### 7.3.3 Update API Repository

#### IMPORTANT:

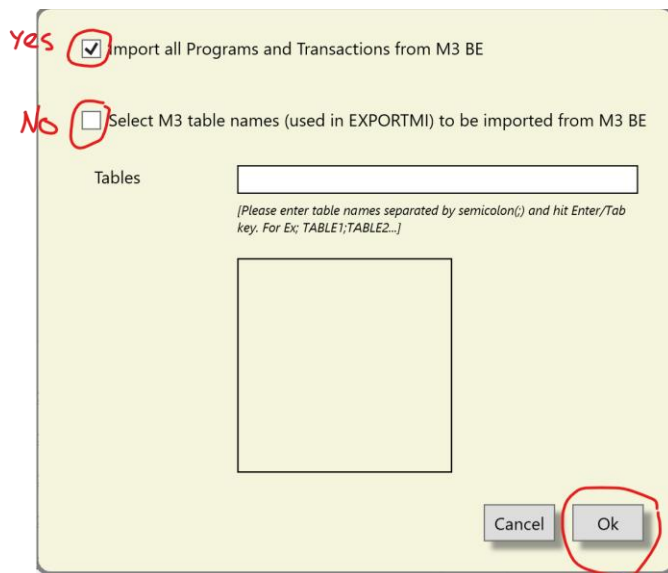
To be able to use your new MDBREADMI API in VXL, you need to update your MRS001 MI repository from M3 to the VXL server.

Open the VXL client, **select the M3 environment** you created the new API and click **“Update Repository”**



Log in with your M3 credentials

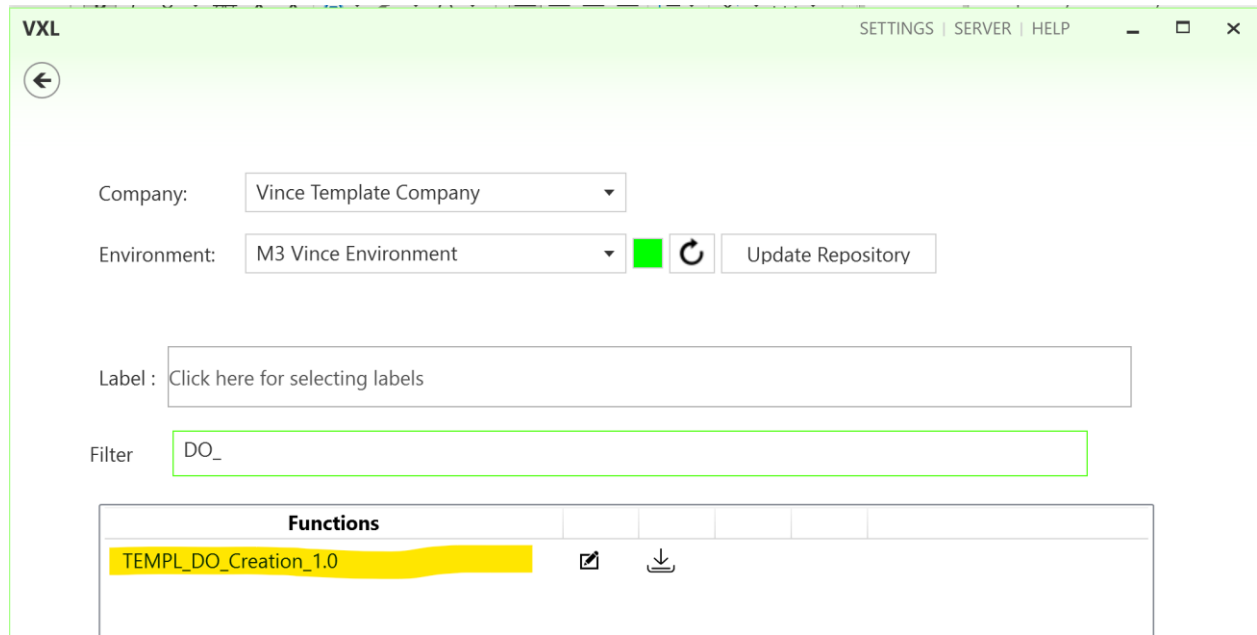
Then the box below appears, set the parameters as shown and click the “OK” button.



The MRS001 MI program update will run for 5-10 minutes and a pop-up will appear on your screen when the update is ready.

## 8 The VXL Client

Find your VXL function "TEMPL\_DO\_Creation" and double click to open it.



### 8.1 Export and Import Tasks

The VXL function contains the following tasks for export from M3 to Excel

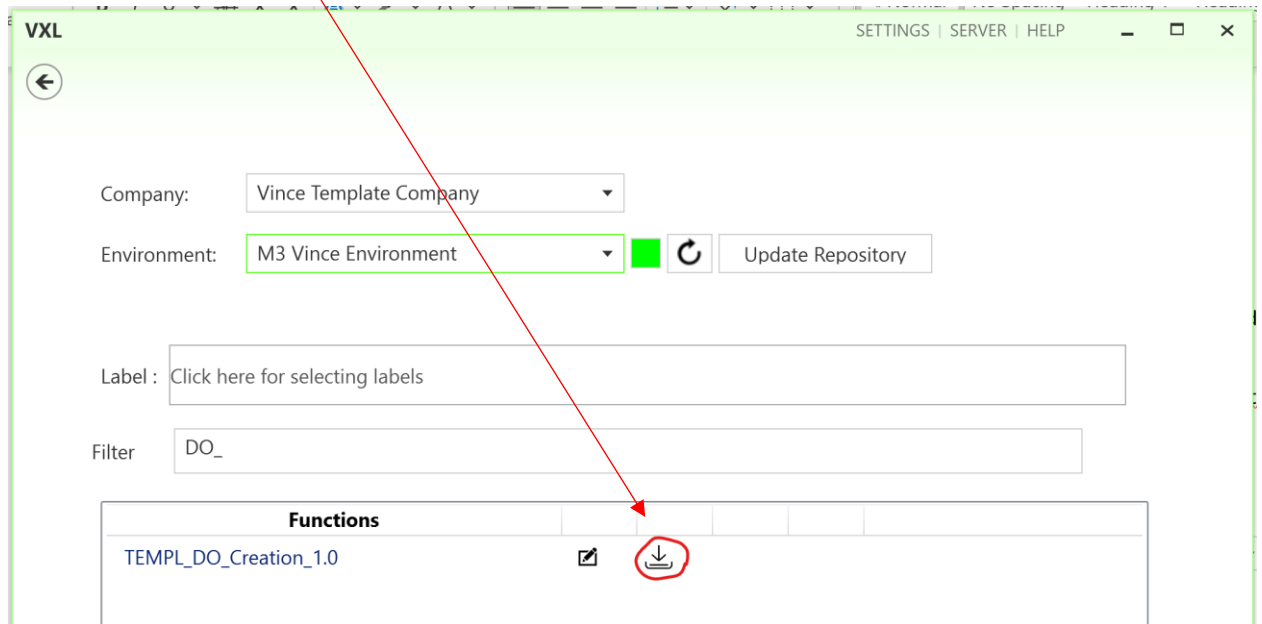
<p>Validate Item</p> <p>Validate Item</p>	← This task is used to validate the item/warehouse data entered in the spread sheet before the import is done to M3.
<p>Create Distribution Order</p> <p>Create Distribution Order</p>	← This task is used for importing Distribution Orders from Excel to M3 using the MHS850 order initiated stock transaction Interface.
<p>Get DO Number</p> <p>Get DO Number</p>	← This task is used to update the Excel sheet with which DO numbers have been created during import.

## 9 Example - How to run the VXL template

### 9.1 Populate the DO upload sheet

Before importing distribution orders from Excel to M3, you need to enter the order header/line data in the Excel upload sheet.

You can retrieve the Excel Upload file by opening the VXL Client, find your “TEMPL\_DO\_Creation” function, and click on this ikon to the right of the function.



This Excel spread sheet will open. This spread sheet contains no import data.

	A	B	C	D	E	F	G	H
1	vince Create Distribution Orders							
2								
3	WHLO	CUNO	TRTP	RPDT	WHSL	TWSL	ITNO	DLQT
4	From Warehouse	To Warehouse	Order Type	Transaction Date	From Location	To location	Item Number	Quantity
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								

First of all, you need to manually enter order-header and order-line data in to the spread sheet as shown below.

In the example below, the data in column A, B, C and D will be used to create an order header, and the column A, B, C, D, E, F, G and H will be used to create the order lines (E and F are not mandatory).

When you have entered your order/lines data in the spread sheet, name and save you excel upload file in a folder, and then close your excel sheet.

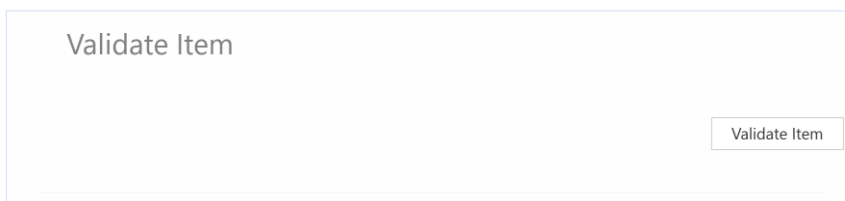
WHLO	CUNO	TRTP	RPDT	WHSL	TWSL	ITNO	DLQT
From Warehouse	To Warehouse	Order Type	Transaction Date	From Location	To location	Item Number	Quantity
001	W01	AD2	11/15/2022			12001225	1
001	W01	AD2	11/15/2022			12001226	1
001	W01	AD2	11/15/2022			12170021	1
001	W01	AD2	11/15/2022			12170022	1
001	W01	AD2	11/15/2022			12170023	1
M01	901	AD1	11/17/2022			MTT-ITM-01	1
M01	901	AD1	11/17/2022			MTT-ITM-02	1
M01	901	AD1	11/17/2022			MTT-ITM-03	1
M01	901	AD1	11/17/2022			MTT-ITM-04	1
M01	901	AD1	11/17/2022			MTT-ITM-05	1

Our spreadsheet is now ready for validation.

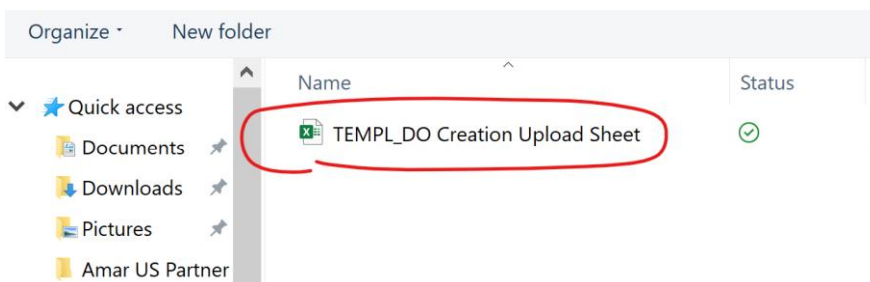
### 9.2 Validate Item Warehouse data before import

On the TEMPL\_DO\_Creation function in the VXL client, the first task is used to run a validation on certain item/warehouse data before the Excel sheet is uploaded to M3.

Click the "Validate Item" button



Then select the Upload sheet you worked with in chapter 9.1



When VXL has run the validation, the excel sheet opens automatically and presents the validation data in column J to N (see screen dump below).

In these columns you get the Item name, the status of the item in MMS002 and the On-hand balance, Allocated quantity and Allocated net.

This is just information used to do a manual validation whether the various Items on the "From-Warehouse" have the correct status and possibly enough balance to be distributed to the "To-warehouse".

In our example below, are short of stock on most of the Items.

ITNO		DLQT	ITDS	STAT	STQT	ALQT	AV02
Item Number	Quantity	Item Name	Item Sts in Whs	On-hand Bal	Alloc Qty	Alloc Net	
12001225	1	M3M Normal Item3	20	0	0	-17	
12001226	1	M3M Normal Item4	20	0	0	-2	
12170021	1	letst Item 21	20	0	0	-1	
12170022	1	letst Item 22	20	0	0	-1	
12170023	1	PRIYANKA	20	0	0	-1	
MITT-ITM-01	1	High Definition Colorbase 1 Z1	20	100	92	18	
MITT-ITM-02	1	High Definition Colorbase 2 Z2	20	10	10	-78	
MITT-ITM-03	1	High Definition Colorbase 3 Z3	20	10	10	-86	
MITT-ITM-04	1	Med Definition Colorbase 1 M1	20	10	10	-86	
MITT-ITM-05	1	Med Definition Colorbase 2 M2	20	10	10	10	

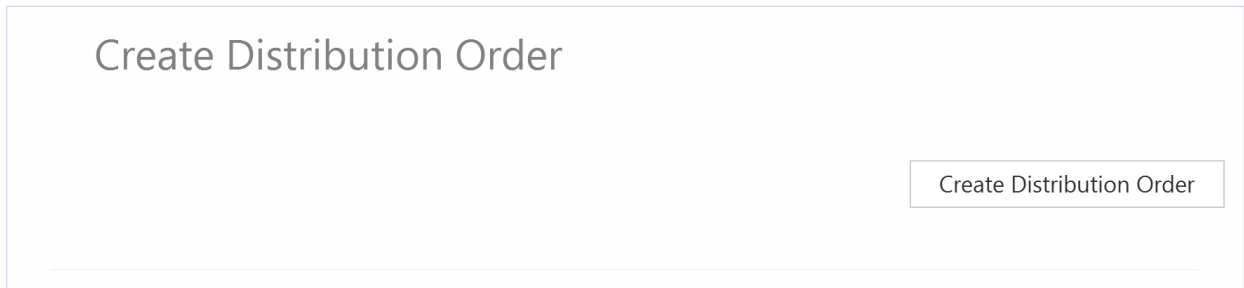
Despite the fact that we are short of stock on most Items, we still choose to import the spread sheet.

Based on the data in the Excel sheet, this import should create two distribution orders with 5 lines each.

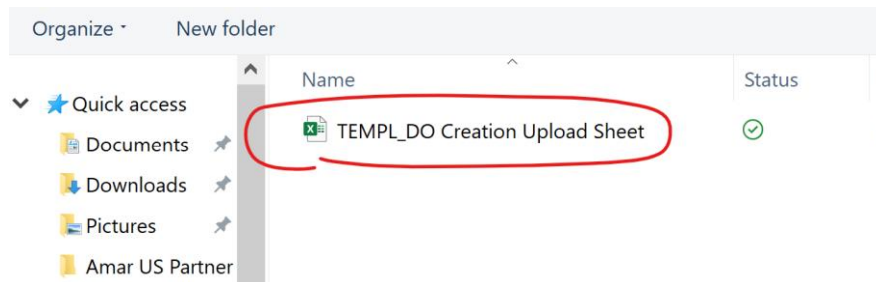
WHLO	CUNO	TRTP	RPDT	WHSL	TWSL	ITNO	DLQT
From Warehouse	To Warehouse	Order Type	Transaction Date	From Location	To location	Item Number	Quantity
001	W01	AD2	11/15/2022			12001225	1
001	W01	AD2	11/15/2022			12001226	1
001	W01	AD2	11/15/2022			12170021	1
001	W01	AD2	11/15/2022			12170022	1
001	W01	AD2	11/15/2022			12170023	1
M01	901	AD1	11/17/2022			MITT-ITM-01	1
M01	901	AD1	11/17/2022			MITT-ITM-02	1
M01	901	AD1	11/17/2022			MITT-ITM-03	1
M01	901	AD1	11/17/2022			MITT-ITM-04	1
M01	901	AD1	11/17/2022			MITT-ITM-05	1

### 9.3 Import Distribution Orders

On the function in the VXL client, click the "Create Distribution Order" button:



And once again select the Excel file to be imported



When the import is done, the Excel upload file will automatically open up. Scroll all the way to the right to see the API responses on how the import went.

As you can see from the screen dump below, the import went OK in the MHS850-Order Init Stock Trans Interface.

- Column V states that all API's ran in the import were successful.
- Column W states that two DO headers were created successfully in MHS850MI
- Column X states that two warehouse packs were created successfully in MHS850MI
- Column X states that all DO lines were created successfully in MHS850MI
- Column AF states that the processing of the warehouse trans was successful in MHS850MI
- Column P presents the DO message numbers created in MHS850MI
- Column Q presents the DO numbers created in MMS100, but we cannot see these in column Q until we run the next task "Get DO Number"

P	Q
<b>Processing Data</b>	
REFE	TRNR
MessageNo	Distribution Order
0000000943	
0000000944	

V	W	X	Y	Z
<b>API Response</b>				
<b>CREATE DISTRIBUTION ORDERS</b>				
TOTAL	AddWshHead	AddWshPack	AddWshLine	PrcWshTran
OK	OK	OK	OK	
OK			OK	
OK			OK	
OK			OK	OK
OK	OK	OK	OK	
OK			OK	
OK			OK	
OK			OK	
OK			OK	OK

If we take a look in MHS850-Order Init Stock Msg Interface, we will find the two DO's in status=90

Menu
Start
MHS850 Order Init Stock Msg. Manage
✕

ACTIONS ▾
OPTIONS ▾
RELATED ▾
TOOLS ▾

Warehouse:  MAIN warehouse (Facility A01)

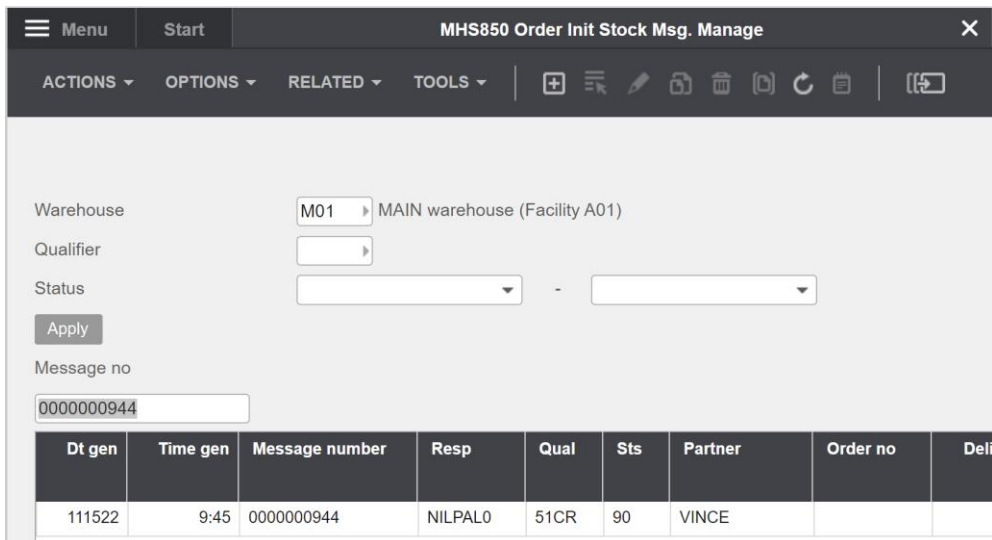
Qualifier:

Status:  -

Message no:

Dt gen	Time gen	Message number	Resp	Qual	Sts	Partner	Order no	Deliv
111522	9:45	0000000943	NILPAL0	51CR	90	VINCE		

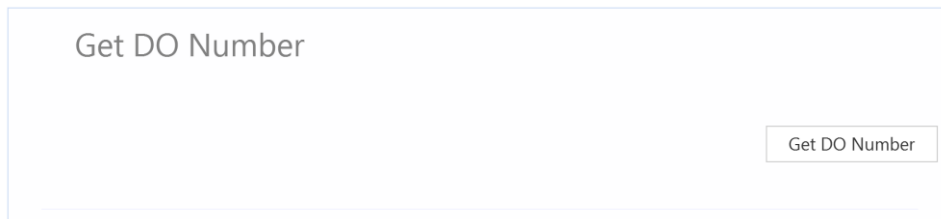




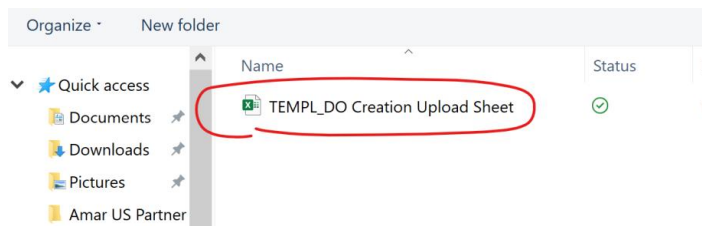
#### 9.4 Get the Distribution Order numbers from the import.

At this point the DO's are created both in MHS850 and MMS100, but we have no information about which DO numbers they have received in MMS100 yet.

To get the DO numbers, we need to run the last task "Get DO Number" in the VXL function. Click the button "Get DO Number".



And once again select the same Excel file to be imported



When the import is done, the Excel upload file will automatically open. Scroll all the way to the right to see the API responses from this task.

As you can see from the screen dump below, the import went OK in the MHS850-Order Init Stock Trans Interface.

- Column AA and AB states that the GetMGLINEX9 API ran successfully.
- Column Q presents the DO numbers created in MMS100.

P	Q	AA	AB
<b>Processing Data</b>			
REFE	TRNR	GET DO Number	
MessageNo	Distribution Order	TOTAL	GetMGLINEX9
0000000943	0041000387	OK	OK
0000000944	0041000388	OK	OK

### The result in MMS100 – Req/Distr Order

If we open MMS100 in M3, we find our two imported DOs created as expected.

Menu Start
MMS100 Req/Distr Order. Open

ACTIONS OPTIONS RELATED TOOLS

Facility:  Main facility (DIV AAA)

Lowest status:  -

Highest status:  -

Ord no	B	Ref order	Ref ol	Sf	Otp	Trs dt	Whs	Pri	Lns	Lws	His	Resp
0041000387					AD2	221115	001	5	5	22	22	NILPAL0
0041000388					AD1	221117	M01	5	5	22	33	NILPAL0

If we take a look at the order lines for one of the orders, we see that we have created the order lines we expected for this order based on the input data from the excel sheet.

Menu Start
MMS101 Req/Distr Order. Open Lines

ACTIONS ▾ OPTIONS ▾ RELATED ▾ TOOLS ▾

**Panel Header** Sorting order

Order no: 0041000388

Net order value: 236.56

Gross weight: 10000.345

**Order Lines**

Line	Sf	Item number	Name	Tr qt	U/M	Jde	His	Whs	Twh	Style no	Si
10		MTT-ITM-01	High Definition Colorbase 1 Z1	1	EA		33	M01	901		
20		MTT-ITM-02	High Definition Colorbase 2 Z2	1	EA		22	M01	901		
30		MTT-ITM-03	High Definition Colorbase 3 Z3	1	EA		22	M01	901		
40		MTT-ITM-04	Med Definition Colorbase 1 M1	1	EA		22	M01	901		
50		MTT-ITM-05	Med Definition Colorbase 2 M2	1	EA		22	M01	901		