DS0375

SOP, MOP Enhancements

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Problem Definition

Problem Definition	CCDA
The following requests are addressed: • Sales Document Holds • Sales Line Holds • Requested Ship Date Audit Trail • Customer Assigned Serial Numbers • MO Holds- ability to control if the hold removes the MO from MRP, CRP, both or neither. • Depot WO to MFG MO Integration **Sales Document Holds** ACME Co. needs the ability to make the demand created by sales lines “disappear” from MRP when a Hold is applied to the sales document. **Sales Line Holds** ACME Co. frequently needs to put a specific sales line on hold, either due to a customer request, or to resolve an internal production issue. Placing lines on hold complicates their need to report on delivery performance against requested ship date. ACME Co. would like the system to: 1- Track a reason code for putting a line on hold and/or changing a requested ship date 2- Create an audit trail of changes to Requested Ship Date. The audit trail should show: a. The time, date and user ID b. Before value and After value of the Requested Ship Date (what is was changed from, and what it was changed to). c. A reason code for the change 3- Putting a line on hold should remove it from visibility to MRP	

They need the ability to define different types of Line Holds, and each Hold should have a Requested Ship Date associated with it. When a user puts a line on hold, by selecting a Hold ID, the system should automatically set the Requested Ship Date to the pre-defined value.

For example, CUSTOMER Hold might set the date to 12/31/9999, while ENGINEERING might set the date to 12/31/3000. The exact date is not important, just as long as the date falls outside of any possible MRP date range. Setting the Requested Ship Date well into the future is what makes the sales line invisible to MRP.

If the user manually changes the Requested Ship Date, the system will require them to enter a Reason Code for the change.

Changes to due Holds and manual changes (i.e. to move to a new date requested by the customer), will both be recorded in the Requested Ship Date audit trail.

Sales Line Requested Ship Date Audit Trail
Track all changes to Requested Ship Date, who made the change, a date/time stamp of the change, and why it was changed.

Customer Serial Number Entry
ACME Co. has a handful of customers who provide the serial numbers ACME Co. needs to use on the assemblies. For all other manufacturing orders the serial numbers are auto-generated by GP.

Sales needs the ability to record these serial numbers attached to a sales transaction.

One MO is created per unit ordered. So the quantity on a parent MO is always 1.

Production needs to be ability to select from the list of assigned serials to use them on an MO. The serials will be assigned either using the Serial Number Pre-Entry (from MO Entry), or during MO Receipt.

The Traveller package contains a document with the Sales Order Number, so the user will be able to provide that number in manufacturing to retrieve the serial numbers.

When selecting from the serial numbers, the user needs to be able to see all serials assigned to the document (i.e. if there are multiple lines on the order, the user should be able to see all lines/all serials, and select from any of them).

As a serial number is selected for use, it should be marked as such (i.e. used). Once used, it should continue to display on the window, but it cannot be selected a second time.

MO Holds Change

ACME Co. needs to refine the MO Holds functionality. In some cases they need to note that there is a hold, but keep the MO visible to MRP and CRP so that the lower level sub-assembly MO's are still produced.

To support this requirement, ACME Co. needs the ability to control whether the MO Holds window removes CRP information for an MO, removes MRP information, or just adds the Hold ID.

Depot WO to MFG MO Integration

A previous customization from WilloWare provided the ability to create an MO from a Depot WO, and link the WO Parts to the MO Picklist. That design required each item to have a "repair" routing in manufacturing. In reality, depending on the type of work to be performed, any one of several different "routings" will be used, and the generic routing steps would be similar for many different items.

The Depot WO process will be as follows:

1. An RMA is created, and a Depot WO generated from the RMA
2. When the returned unit arrives, a tech assesses the unit to make a decision about the work that needs to be performed.
3. When that decision is make the tech will change the WO "Type" to indicate the type of work to be done.

At that point ACME Co. needs to create the MO linked to the Depot WO using a manufacturing routing that corresponds to the WO "Type". The following is needed to support this:

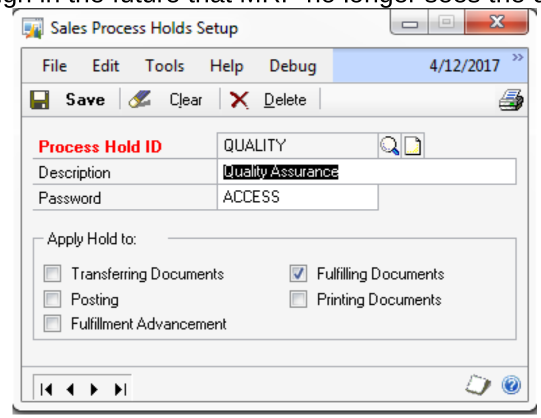
1. The ability to associate a Manufacturing Routing with a TYPE
2. Modify the existing "create MO" functionality so that it is run manually from the Additional menu.

3. Modify the "create MO" functionality so that it uses the correct Routing for the WO Type.	

Sales Document Holds

CCDA

A Sales Document Hold that removes sales demand from MRP will work in an identical fashion to the Sales Line Holds—it will change the Requested Ship Date and In House Due Date to a date far enough in the future that MRP no longer sees the demand.

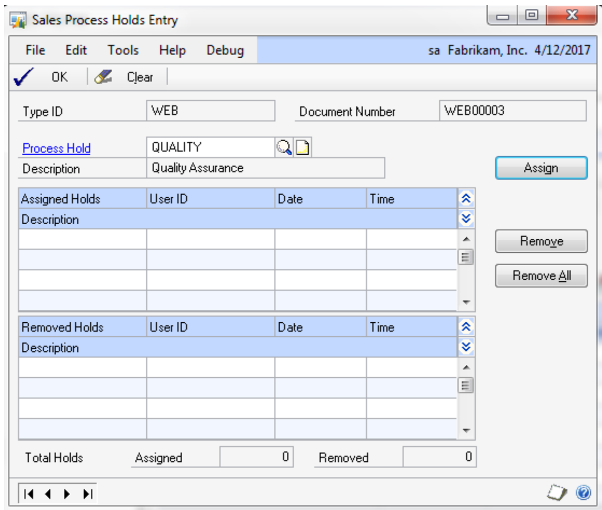


An "Additional" menu option will be added to the Sales Process Holds Setup window (Tools >> Setup >> Sales >> Process Holds). Additional >> MRP Hold Setup

Field	Function
Process Hold	Fills automatically from the Sales Process Holds Setup window. A Process Hold must be selected in the Sales Process Holds Setup window to be able to open the MRP Hold Setup window. This field

	is not editable on MRP Hold Setup.
Date	The date to which the Requested Ship Date, and In House Due Date, will be changed for ALL LINES on the sales transaction.

Assigning a Sales Hold



The Sales Process Holds Entry window will be modified so that when a Hold is Assigned, the system will:

1- See if the Process Hold has a Date assigned to it that is greater than the current date. If the date is empty, or less than the current date, it will not be treated as an MRP Hold.
2- If it is an MRP Hold, the Requested Ship Date and In House Due Date for all lines on the document will be updated to the Date assigned to the Process Hold. If the date is far enough in the future this will have the effect of making the demand invisible to MRP.
3- The Requested Ship Date audit trail will be updated to reflect the change (see section Requested Ship Date Audit Trail).

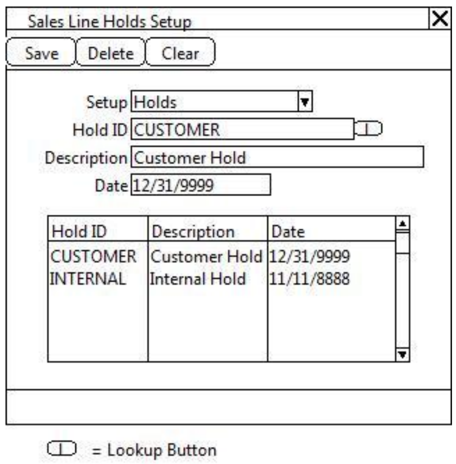
When a Process Hold is removed, the system will check if any other Process Hold exists

that is an MRP Hold. If so, the Requested Ship Dates on the lines will NOT be reset. When the last (or only) Process Hold is removed, the system will also set the Requested Ship Date and In House Due Date back to the original Requested Ship Date.	

Design Features

Sales Line Holds Setup

CCDA



Navigation: Tools >> Setup >> Sales >> Sales Line Holds Setup
This window will be used to define the HOLDS that can be placed on a sales line, and also the Reason Codes that can be attached to a change in Requested Ship Date.

Field	Function
Setup	Options: 1- Holds 2- Reason Codes
Hold ID / Reason Code	The label on this field will change depending on the selected Setup type.
Description	A plan text description of the Hold/Reason Code.
Date	This field is only enabled when Setup = Holds is selected. There are two purposes of the Date field.

	First, it is used to automatically change the Requested Ship Date (and In House Due Date) to a date far enough in the future that the sales line is no longer visible to MRP. So when setting a Line Hold the Requested Ship Date is forced far enough in the future that MRP no longer sees the demand, Second, the date provides a visual indictor on the sales line of the type of hold placed on a line without having to drill into the sales line holds window. Date can be left blank (0/0/0000). The date might be left blank when create a SOP Line hold that is "informational" and should not affect the line's visibility to MRP.

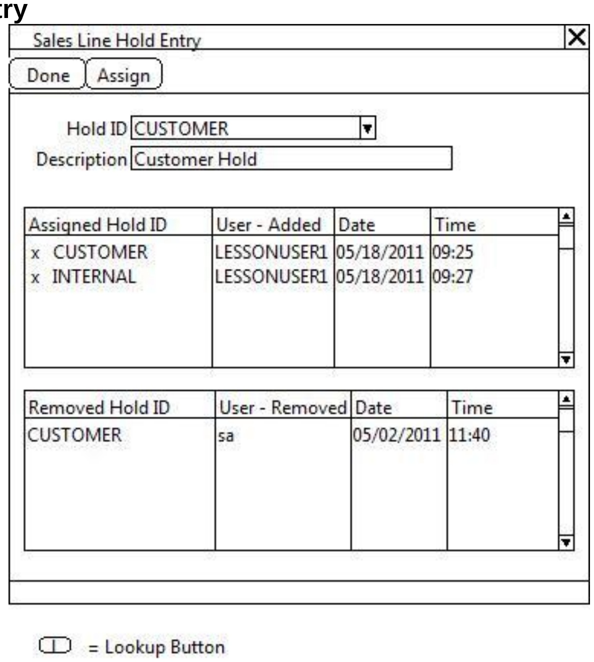
The scrolling window displays all Holds or Reason Codes, depending on the Setup type. Double-clicking a line in the scrolling window makes it display in the top section of the window for editing.

Holds/Reason Codes can be changed or deleted even if they are in-use on existing transactions (or posted transactions).

Sales Line Hold Entry

CCDA

Sales Line Hold Entry



Navigation: from Sales Transaction Entry >> Additional >> Sales Line Hold.

After selecting a line on a sales transaction, the user will be able to go to Additional >> Sales Line Hold to open the window shown above. This window is used to assign, view, and remove Line Holds from a Sales Line.

Field	Function
Hold ID	User selects a Hold ID from the drop-down, then clicks the

	ASSIGN button to assign a hold to line.
Description	Displays the description of the selected Hold.
"x"	This is a "delete" button that appears on the line next to the assigned Hold ID. Clicking it removes the Hold.
ASSIGN	See Assigning Sales Hold below.

Assigning Sales Line Holds
When the ASSIGN button is clicked the Hold ID is added to the Assigned Holds list. The same Hold ID can be assigned only once. If it is removed, the Hold ID can be reassigned.

Unlike the Sales Holds applied to the document, the Removed Holds list tracks the entire history of added & removed holds. With the document level Holds, if a "removed" hold is re-applied to the document, it disappears from the Removed list and reappears in the Applied list.

With the line holds, the Removed list is an audit trail of removed holds—it does not clear if the same Hold ID is added a second time to the document.

The Sales Line Holds table will track who added a hold, with a date/time stamp, and who removed the hold, with a date/time stamp.

When a Hold is added it automatically changes the sales line's Requested Ship Date to the date assigned to the hold. It will also change the In House Due Date in the MOP-SOP Links table. ACME Co. is no longer linking Sales Lines to MO's, so there will not be an MO to reschedule. MRP is being used to detect requirements and peg planned MOs to sales demand.

If the Hold ID has a blank date, no change is made to the Requested Ship Date.

Since the window has the ability to record multiple types of Holds assigned to the line, the Requested Ship Date will be set to the date of the last assigned Hold (that has an assigned date > 0/0/0000).

Removing Sales Line Holds

When a Hold is removed, the Requested Ship Date will be reset to the original value (the date that was in the field when the Hold was assigned). The original Requested Ship Date is stored with the Hold in the Sales Line Holds table. However, if multiple Line Holds have been added, the Requested Ship Date will not be reset until the last Line Hold is removed.	

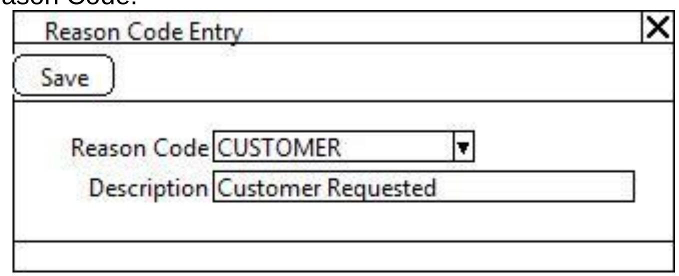
Requested Ship Date Audit Trail

CCDA

Whenever a change is made to Requested Ship Date, either manually by directly changing the field, or automatically by applying/removing a Line Hold, the change will be recorded in an audit trail table.

When the change is created by the Line Hold Entry window, the Hold ID will be stored as the "reason code" for the change.

When the change is manual, the Reason Code Entry window will open, and require the user to pick from a Reason Code:



The audit trail will store:

- User ID who made the change, and a date/time stamp
- The Requested Ship Date before the change
- The new Requested Ship Date
- Reason Code (which could be a Reason Code or a Hold ID).

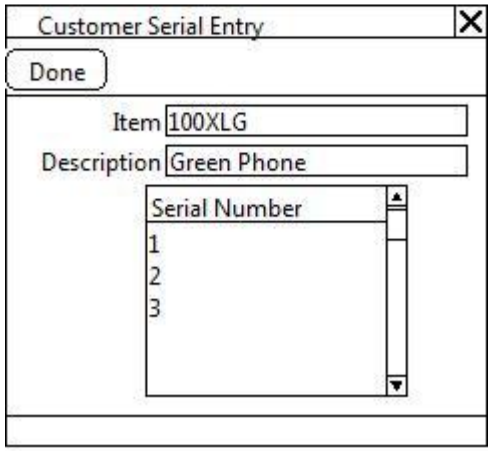
Removal of a Hold ID will be denoted by adding an asterisk (*) to the end of the Hold ID. So adding a Hold ID might appear as CUSTOMER, and when it is removed the audit trail will show CUSTOMER*.

The table name will be: W5941SOPReqShipAudit
SmartList Builder, or other reporting tools, can be used to display this information.
Reporting on this table is not included in this estimate.

Customer Assigned Serial Numbers

CCDA

This window is used to provide serial numbers given to ACME Co. by a customer. For most manufacturing orders the serial numbers will be generated automatically by the system, however, for select customers this "pre-defined" list of serials will be used to manually add serial numbers to the MO.



From Sales Transaction Entry, with a line selected, go to Additional >> Customer Serial Entry.

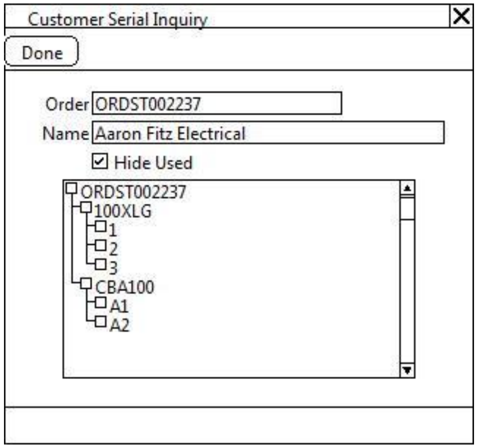
Field	Function
Item Number	Displays the Item Number from the line
Description	Displays the description
Serial Number	User enters a list of customer provided serial numbers. The system will not allow duplicates within this list, but it will not validate a serial number on this list against Customer Serial Numbers anywhere else (on other lines of the current document, on other documents, or existing serial numbers in GP).

The following controls will be added to the Order:

- If the order is deleted, the serials will be deleted
- If the line is deleted, the serials for that line will be deleted
- If the line quantity is decreased or increased the system will not attempt to make the user enter the correct quantity of serial numbers. The user needs to open the Serial Entry window and make adjustments.

The serial numbers will not follow the Order when it is transferred to an Invoice. If an order line is deleted, the serials will be deleted.

They will be visible on historical Orders from the Sales Transaction Inquiry via Additional >> Customer Serial Inquiry.

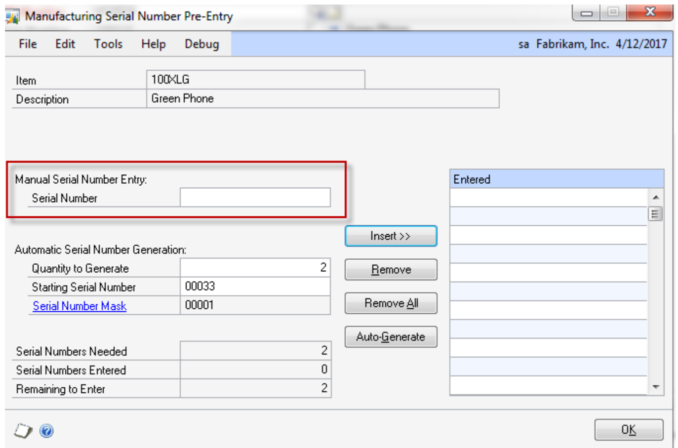


The Customer Serial Inquiry window will also be available from the Additional menu on Sales Transaction Entry. This window provides a quick overview of all lines, and all serials assigned to the lines, and can be used in Sales Entry to verify everything has been entered correctly.

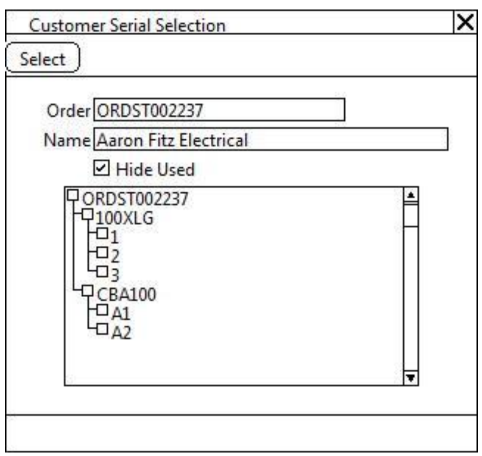
In manufacturing the serial numbers will be available in two locations:

- Manufacturing Serial Number Pre-Entry (MO Entry)
- Manufacturing Serial Number Entry (MO Receipt)

Both windows have a similar look. When the Customer Serial Number is selected, it will populate the Serial Number field.



The customization will automatically run the INSERT button so that the serial number is automatically added to the “entered” list.

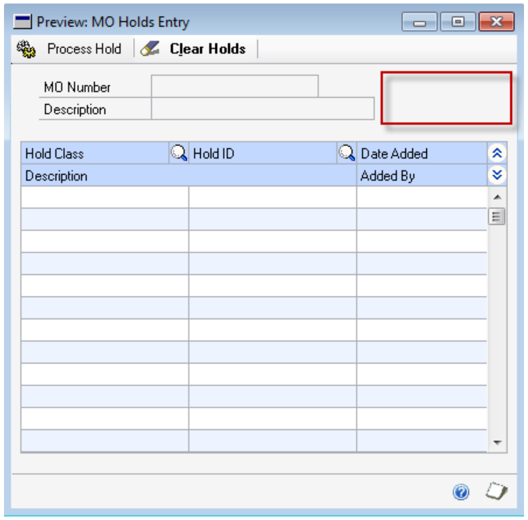


The user will be able to select the checkbox next to the serial number they want to use. Clicking SELECT will return the serial to the Manufacturing window.

By default the Customer Serial Selection window will not show previously selected serials. The “Hide Used” box can be unmarked to view all serials. There is no method provide to “un-use” a selected serial number. Once the user marks the box, and clicks Select, that serial number will be used. The table that stores these serial numbers will record (1) that a serial number has been used, (2) which MO it was selected for, and (3) the user who selected it.	

MO Holds Changes	CCDA

Two checkboxes will be added to the MO Holds Entry window in the space shown below in the red box. The two checkboxes will be:



The checkboxes will be:

- Remove from CRP
- Remove from MRP

By default, neither box will be marked.

A new button will be added to the left of the “Process Hold” button: “Done”. DONE will simply close the window.

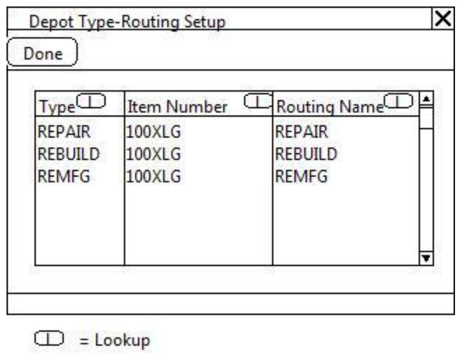
Holds can be added to the scrolling window for reference purposes only. After adding a Hold, click DONE to close the window without affecting CRP or MRP. Clicking Process Hold will also just close the window if neither box is marked.

The boxes will always be unmarked when the window is re-opened. They do NOT reflect the status of whether or not CRP information was removed. If one or both boxes where marked when a hold was added, and Process clicked, you cannot reverse the CRP or MRP removal by having the boxes unmarked and clicking Process. The only way to re-activate an MO is to clear the Holds. Remove from CRP – when this box is marked, the CRP information for the MO will be removed. Remove from MRP – when this box is marked, the MO Status will be set to Hold.	

Depot WO to MFG MO Integration

CCDA

The Depot Type-Routing Setup window will be used to create a link between a Depot Work Order Type and a Manufacturing Routing that should be used when creating the Depot linked MO.



Navigation: Tools >> Setup >> Manufacturing >> Depot Type-Routing Setup

Field	Function
Type	User enters a Work Order Type, or selects one from the Lookup
Item Number	User enters an Item Number, or selects one from the Lookup.
Routing Name	User enters a Routing Name, or selects one from the Lookup.

Since Manufacturing Routings are tied to specific items, the “template” routings will have to be created attached to an item. It can be any item, and all of the different templates can be attached to one item.

When the MO is created the system will use the “template” routing indicated by the WO Type to create a new routing for the WO Item. For example, if the WO is for item CAP100, and the WO Type is REPAIR, the system will retrieve the REPAIR routing for 100XLG and create a new routing for CAP100 called REPAIR, copying all of the steps from the 100XLG routing.

Each time a new WO is created for CAP100, it will re-create the REPAIR routing using the 100XLG template. The implication is that the template routing names (i.e. REPAIR, REBUILD) are “reserved” and should only be created on the template item. Since the system will automatically recreate a REPAIR routing on an item anytime it is needed, if there was already a REPAIR routing created for the item it would be overwritten.	