Acumatica
The Cloud ERP

Manufacturing Edition

Product Demonstration Script

January 2018

Acumatica Manufacturing Edition Core Modules

Bill Of Material

Integrated BOM/Routing
Multi level BOM/Routing
Activity-Based Costing
Fixed & Variable Overhead
Effectivity / Expiration Dates
Flexible Copy BOM
Define Outside Processes
Reference Designators
Production Steps
Multi-Site
Phantoms

Material Requirements Planning

Full Regeneration
Master Production Schedule
Purchase / Production
Sales Forecasting
MRP Buckets
Transfer Recommendations
Multi-Site Demand Planning

Production Management

Labor Tracking
Material Tracking
Lot / Serial Tracking
Scheduling
Production Performance
Production Changes
Backflush Labor & Materials
Auto-create Linked Orders
Barcode Integration
Event Audit Trail
Multi-Site

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Acumatica Manufacturing Edition: Optional Modules

Estimating

Integrated with Opportunities
Integrated with Sales Orders
Simple or Complex Estimates
Create from existing BOM
Use Non-Inventory Items
Auto-create Inventory Items
Estimate Revision Control
Fixed and Variable Overheads
Flexible Copy Options

Product Configurator

Integrated with Opportunities
Integrated with Sales Order
Rules Based
Features and Options
Price and Cost Rollup Options
Supplemental Items
Dimensional
Configure from Customer Portal

Coming Soon

Advanced Planning and Scheduling
Project Manufacturing
Engineering Change Control

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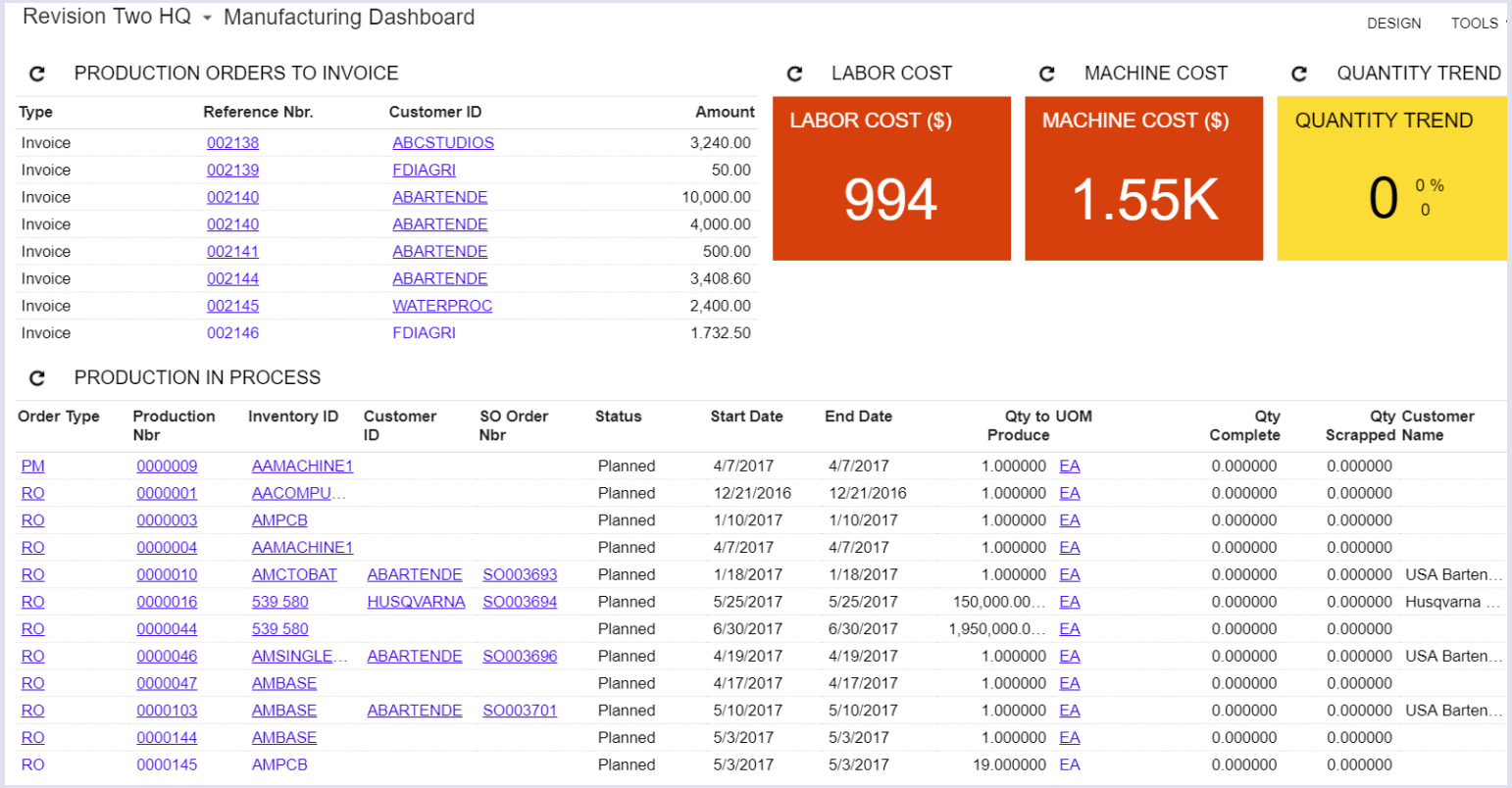
Overview

- Demo Topics:
  - Configuration
  - MFG Dashboard
  - Stock Item Record
  - Bill of Materials
  - Production Examples
    - Make to Stock
    - Make to Order
    - Configure to Order
    - Engineer to Order
  - Material Requirements Planning (MRP)



Type	Reference Nbr.	Customer ID	Amount
Invoice	002138	ABCSTUDIOS	3,240.00
Invoice	002139	FDIAGRI	50.00
Invoice	002140	ABARTENDE	10,000.00
Invoice	002140	ABARTENDE	4,000.00
Invoice	002141	ABARTENDE	500.00
Invoice	002144	ABARTENDE	3,408.60
Invoice	002145	WATERPROC	2,400.00
Invoice	002146	FDIAGRI	1,732.50

Order Type	Production Nbr	Inventory ID	Customer ID	SO Order Nbr	Status	Start Date	End Date	Qty to Produce	UOM	Qty Complete	Qty Scrapped	Customer Name
PM	0000009	AAMACHINE1			Planned	4/7/2017	4/7/2017	1.000000	EA	0.000000	0.000000	
RO	0000001	AACOMPU…			Planned	12/21/2016	12/21/2016	1.000000	EA	0.000000	0.000000	
RO	0000003	AMPCB			Planned	1/10/2017	1/10/2017	1.000000	EA	0.000000	0.000000	
RO	0000004	AAMACHINE1			Planned	4/7/2017	4/7/2017	1.000000	EA	0.000000	0.000000	
RO	0000010	AMCTOBAT	ABARTENDE	SO003693	Planned	1/18/2017	1/18/2017	1.000000	EA	0.000000	0.000000	USA Barten…
RO	0000016	539 580	HUSQVARNA	SO003694	Planned	5/25/2017	5/25/2017	150,000.00…	EA	0.000000	0.000000	Husqvarna …
RO	0000044	539 580			Planned	6/30/2017	6/30/2017	1,950,000.0…	EA	0.000000	0.000000	
RO	0000046	AMSINGLE…	ABARTENDE	SO003696	Planned	4/19/2017	4/19/2017	1.000000	EA	0.000000	0.000000	USA Barten…
RO	0000047	AMBASE			Planned	4/17/2017	4/17/2017	1.000000	EA	0.000000	0.000000	
RO	0000103	AMBASE	ABARTENDE	SO003701	Planned	5/10/2017	5/10/2017	1.000000	EA	0.000000	0.000000	USA Barten…
RO	0000144	AMBASE			Planned	5/3/2017	5/3/2017	1.000000	EA	0.000000	0.000000	
RO	0000145	AMPCB			Planned	5/3/2017	5/3/2017	19.000000	EA	0.000000	0.000000	

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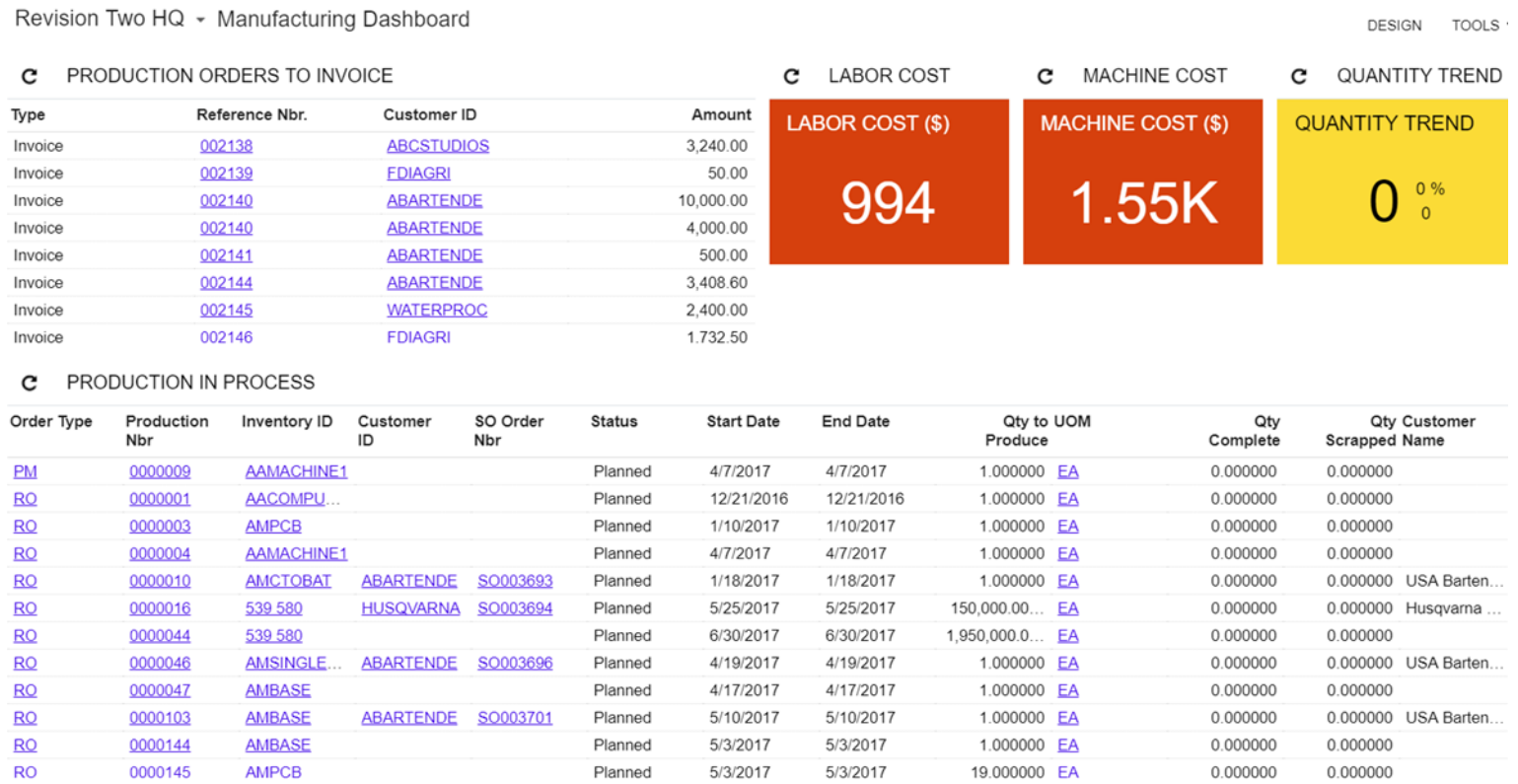
Manufacturing Dashboard

- Production managers using Acumatica MFG Edition will have visibility into the production process in real-time by using Dashboards, Reports, and other built-in analytics
- This dashboard shows key examples for Manufacturers including Production In Process, Labor Costs, Machine Costs, and Production Orders to Invoice



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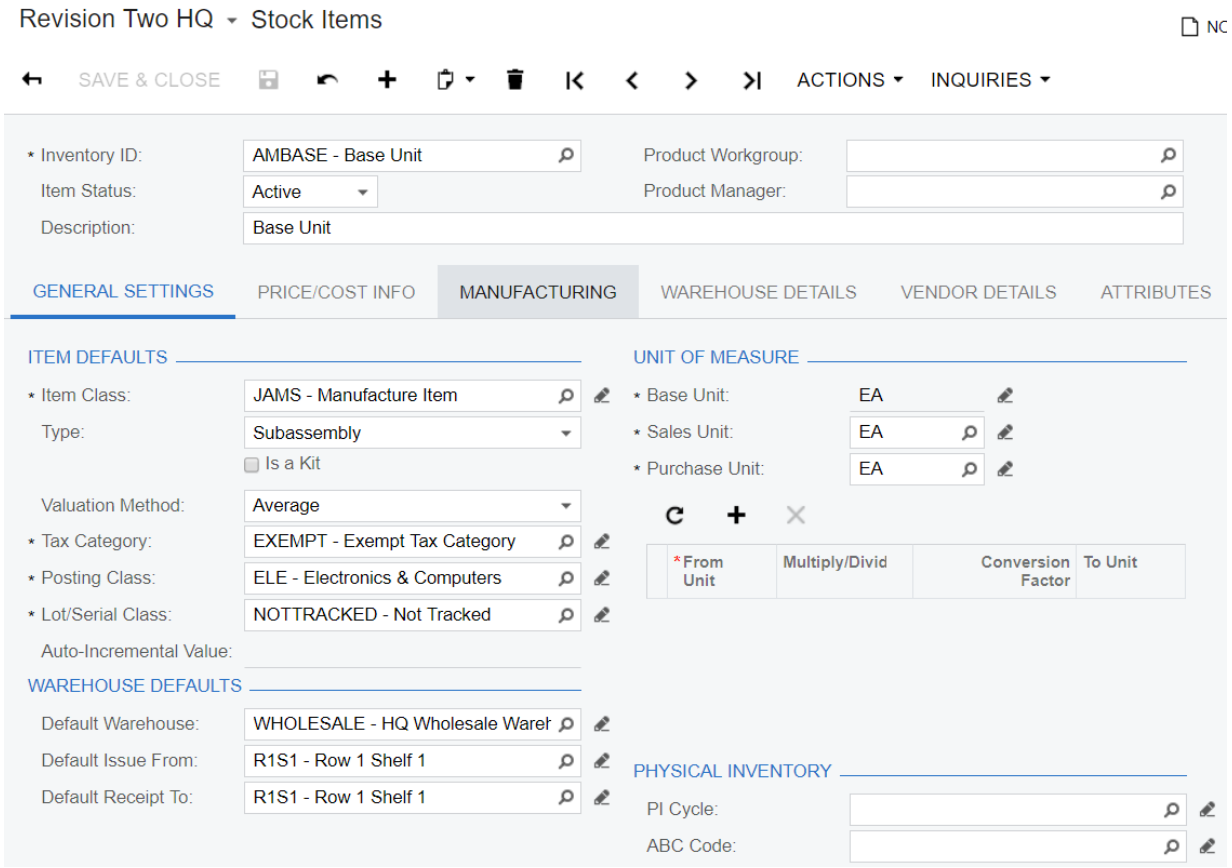
Stock Item Record for Finished Good

- Navigate to the **Stock Item** record of the finished good *(Note: in my example the item is AMBASE, but you should use your prospect's item)*
- Explain appropriate features for prospect on General Settings tab including **Item Classes, Lot & Serial Support,** and **UOM conversions**
- **Manufacturing tab**
  - These are your Production settings (**Default BOM, Lot Size, Min/Max Qtys**)
  - When the Source=Manufacturing, the system will know to generate Production Orders to meet the demand for this item
  - Drill into Default BOM ID



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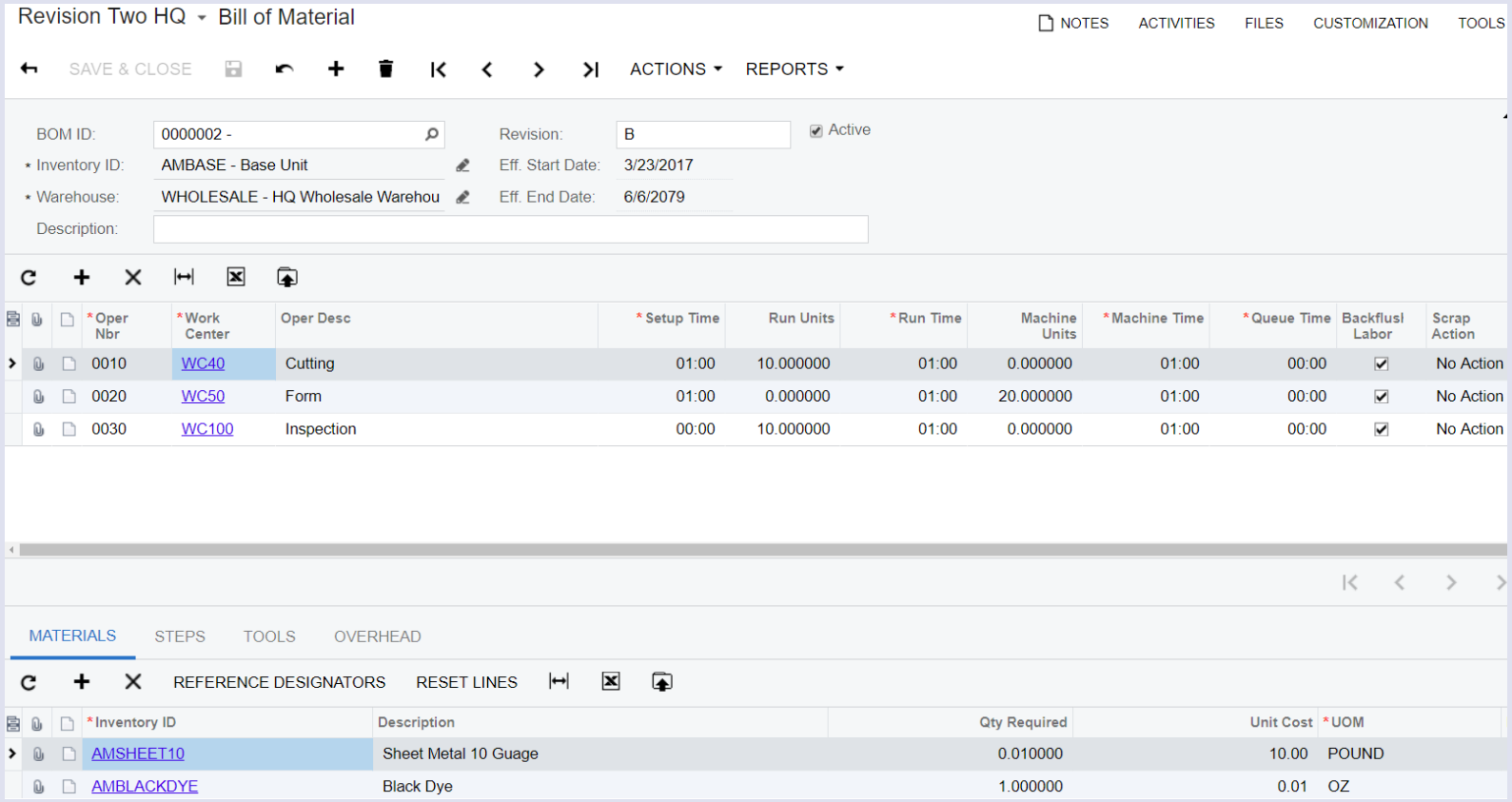
Bill of Materials (BOM)

Notes for user

- You will spend a good amount of your demo time on the BOM because configuring BOMs correctly is key to calculating labor, materials, and costs during the production process
- You can think of the BOM as a “template” or “recipe” for production – what steps do we need to take and what materials do we need to use in order to produce the finished good?



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Bill of Materials (BOM)

1) Summary section of BOM – Finished Good the BOM is for, Warehouse specific, Revision specific, based on Effective Start and End dates

2) Center of the BOM are your Operation Numbers or “routing steps” – the steps that must be completed to produce the finished good
   - Configuring **Setup Time, Run Units/Time, Machine Units/Time, Scrap Actions**, and **Backflush** rules for each operation is key to calculating time and labor costs across the production cycle

3) Each operation number (each line) is tied to the four tabs at the bottom of the screen:
   1) **Materials**
   2) **Steps**
   3) **Tools**
   4) **Overhead**

4) Each operation line is also tied to a **Work Center** (drill into a Work Center to show the settings that are used each time that Work Center is used on a BOM – Shift Info/Labor Codes, Overhead, Machines, Standard Costs, Scrap Action Default, Backflush Materials/Labor)

Bill of Materials (BOM)

- **Materials tab**
  - The material or component quantities needed in order to complete the associated operation
  - If “Backflush” is checked for a component part, then material transactions will be automatically generated upon completion of production and those materials/components will be depleted from inventory
  - Material Type: Regular or Phantom (Phantom is typically selected for small subassemblies that don’t require a separate production order)
- **Steps tab**
  - The steps that need to be taken in order to complete the associated operation
  - Can be printed to the Production Ticket or “job traveler” to provide instruction to those on the shop floor
- **Tools tab**
  - Used to track any tools required to produce the BOM
- **Overhead tab**
  - Overhead to apply for the associated operation
  - Can be Fixed, Variable by Labor Cost or Labor Hours, Variable by Material, Variable by Machine Hours, Variable by Quantity Completed, or Variable by Total Quantity
  - Tied to Cost Rates, GL Accounts, and Subaccounts

Production Order Methods

Notes for user

During your discovery call with your prospect, you should determine what method of production they use internally. Then, during your demo, you should only show the required production method(s). Examples included in this presentation are:

- Make-to-Stock
- Make-to-Order
- Configure-to-Order

Make-to-Stock Example

Production Order Maintenance

Manufacturers that produce using the Make-to-Stock method do not typically require the use of Sales Orders during the production process, so start with a Production Order

1) **Production Orders Workspace > New Production Orders**
   - Create a **new Production Order** for the finished good

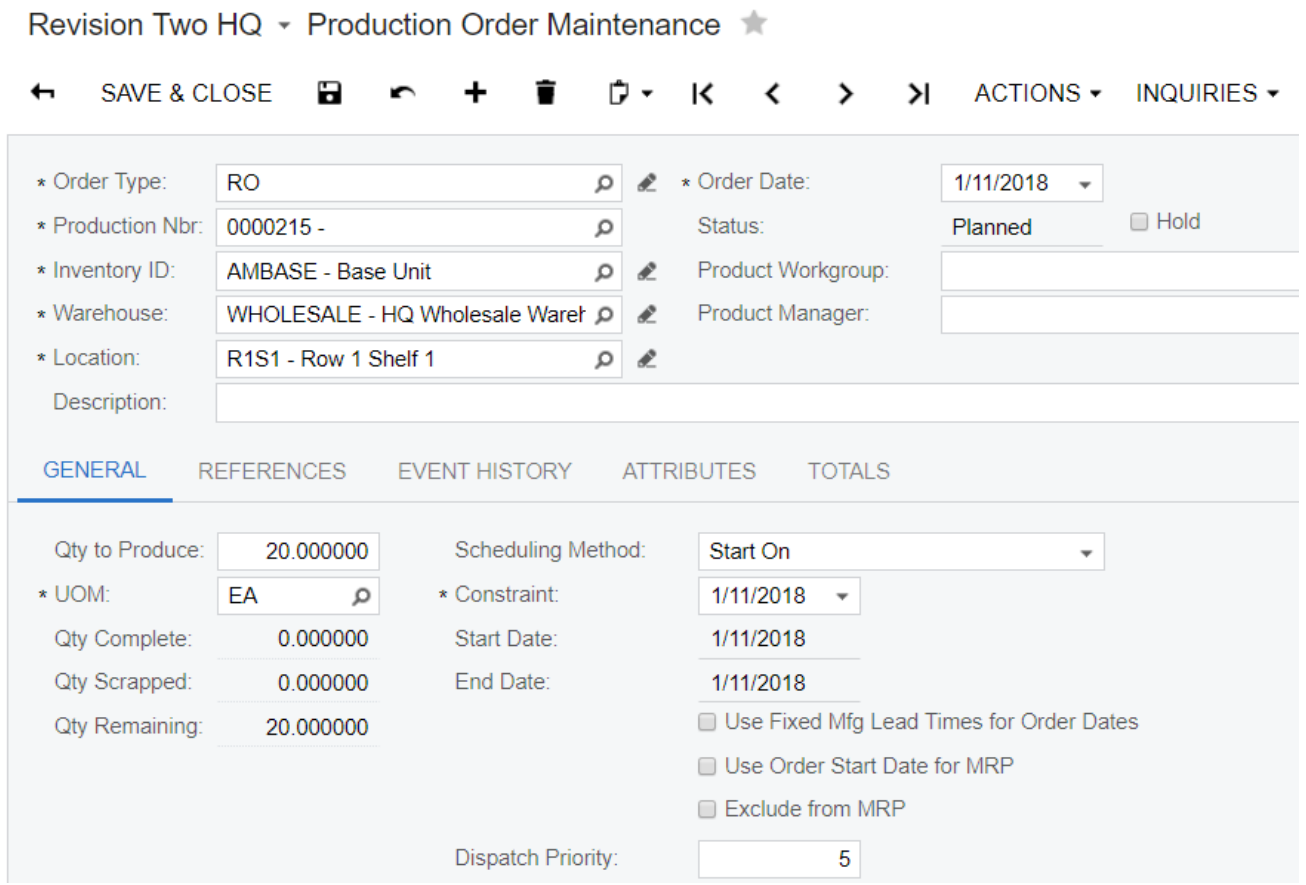
2) Default BOM will be pulled in with associated labor, material, and cost settings we reviewed earlier (**References** tab)

3) Apply quantity to produce (**General** tab)

4) Save

5) **Actions > Release**

6) Review **Totals Tab** and **Event History Tab**



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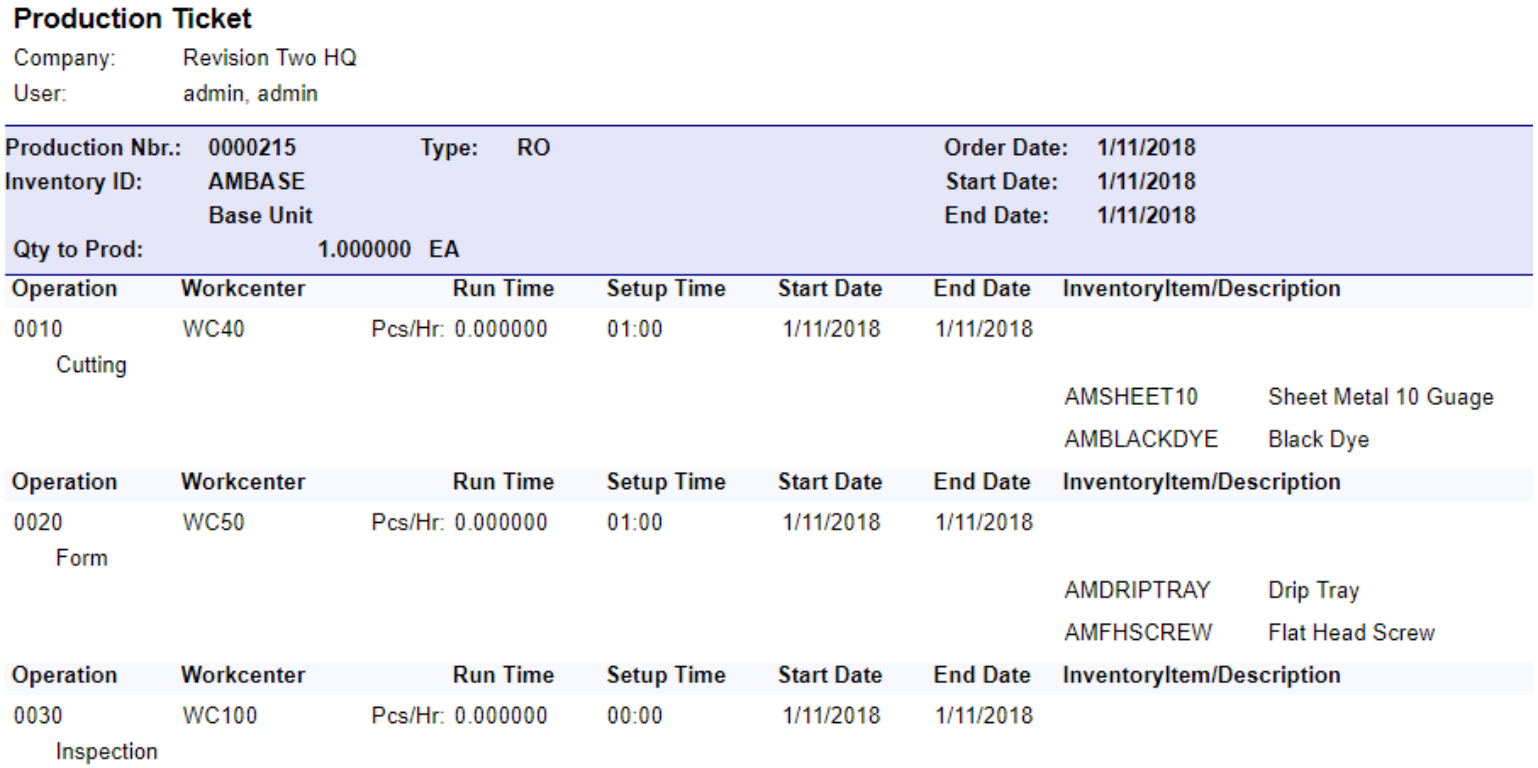
Production Order Maintenance

REPORTS > Production Ticket

- The Production Ticket, often referred to as the “Job Traveler” is usually printed on the shop floor and lists the **Operations, Workcenters, Materials, Steps**, etc that are required to complete the Production Order

INQUIRIES > Production Detail

- The Production Details shows the detailed BOM information for that specific Production Order
- You can make changes to the Production Detail if necessary



Production Ticket

Company: Revision Two HQ
User: admin, admin

Production Nbr.:	**0000215**	**Type:**	**RO**		**Order Date:**	**1/11/2018**
Inventory ID:	**AMBASE**				**Start Date:**	**1/11/2018**
	Base Unit				**End Date:**	**1/11/2018**
Qty to Prod:	**1.000000**	**EA**				

Operation	Workcenter	Run Time	Setup Time	Start Date	End Date	InventoryItem/Description
0010 Cutting	WC40	Pcs/Hr: 0.000000	01:00	1/11/2018	1/11/2018	
						AMSHEET10 Sheet Metal 10 Guage
						AMBLACKDYE Black Dye
Operation	**Workcenter**	**Run Time**	**Setup Time**	**Start Date**	**End Date**	**InventoryItem/Description**
0020 Form	WC50	Pcs/Hr: 0.000000	01:00	1/11/2018	1/11/2018	
						AMDRIPTRAY Drip Tray
						AMFHSCREW Flat Head Screw
Operation	**Workcenter**	**Run Time**	**Setup Time**	**Start Date**	**End Date**	**InventoryItem/Description**
0030 Inspection	WC100	Pcs/Hr: 0.000000	00:00	1/11/2018	1/11/2018	

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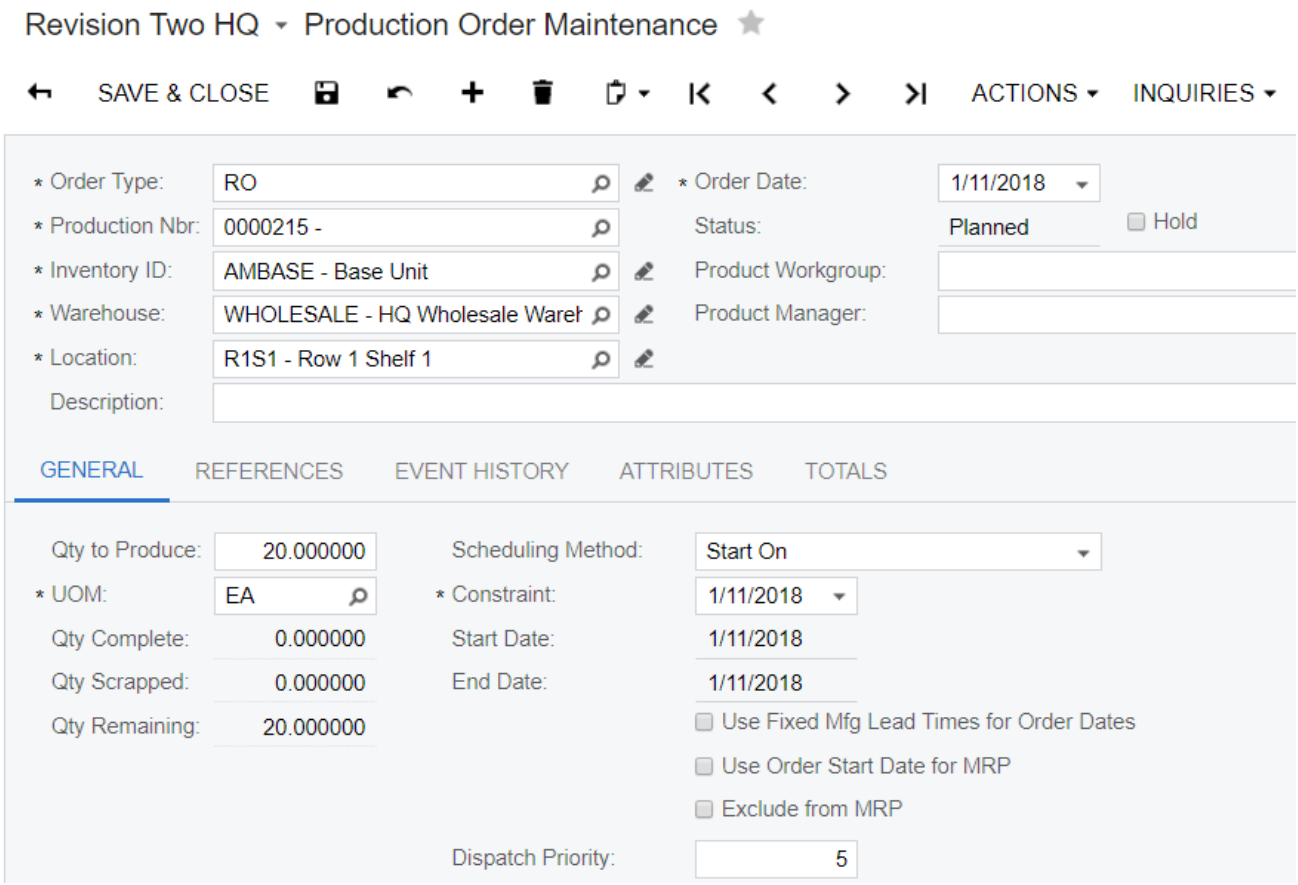
Production Order Reports

At any time throughout the production process, users can return to dashboards or reports in order gain visibility into the current status of the production.

- **Production Summary**
- **Work in Process Report**
- **Work Center Dispatch**
- **Production Order Performance**



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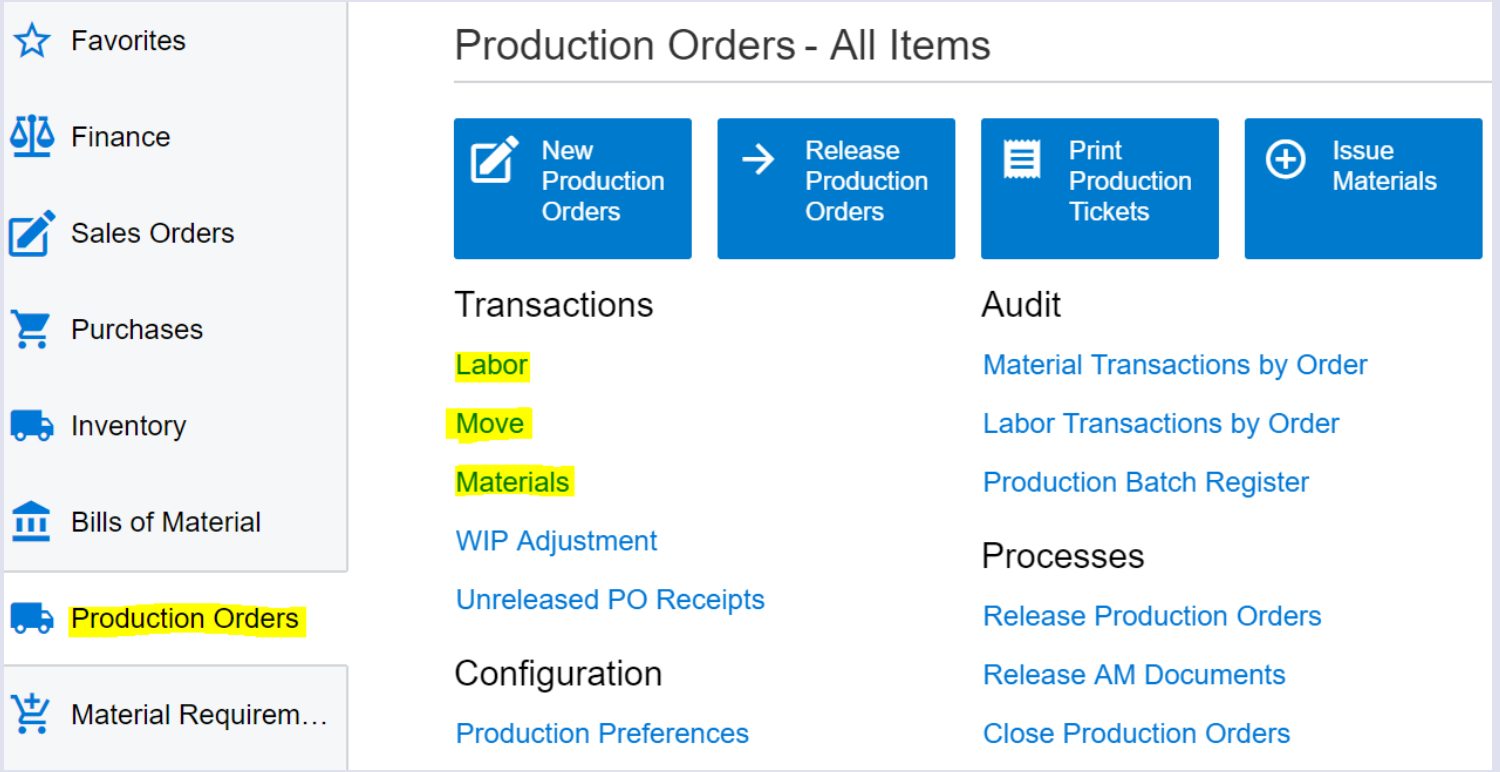
Production Order Maintenance

Notes for user

The next step in your demo depends on if the prospect is BACKFLUSHING their labor and materials or not.

- **If the prospect does NOT backflush, you will enter Labor and Material transactions next**
- **If the prospect DOES backflush, you will enter a Move transaction next** (a Move transaction automatically generates the Material and Labor transactions for a specific BOM/production order)



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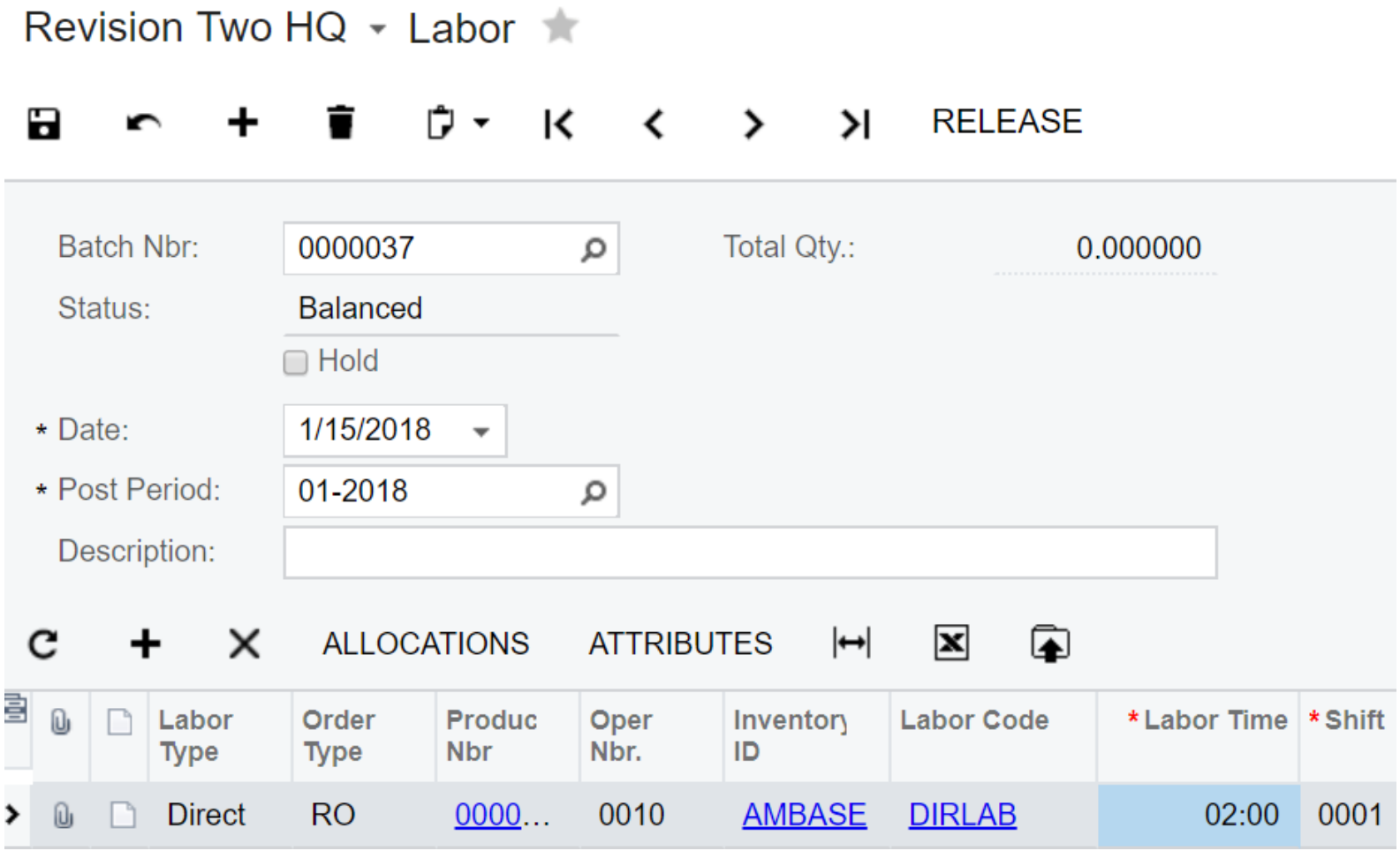
Labor Transaction Example

For a prospect who does not Backflush, enter a Labor Transaction and/or Material transaction

- On the **Labor screen**, enter the labor lines in the detail section at the bottom
- Select the **Production #** you are adding labor to, the **Labor hours** spent, the **Shift**, etc
- Follow the same process for a Material transaction on the **Materials screen** if necessary
- Return to the Production Order to show the transactions have been added under the Event History tab and Totals tab



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Move Transaction

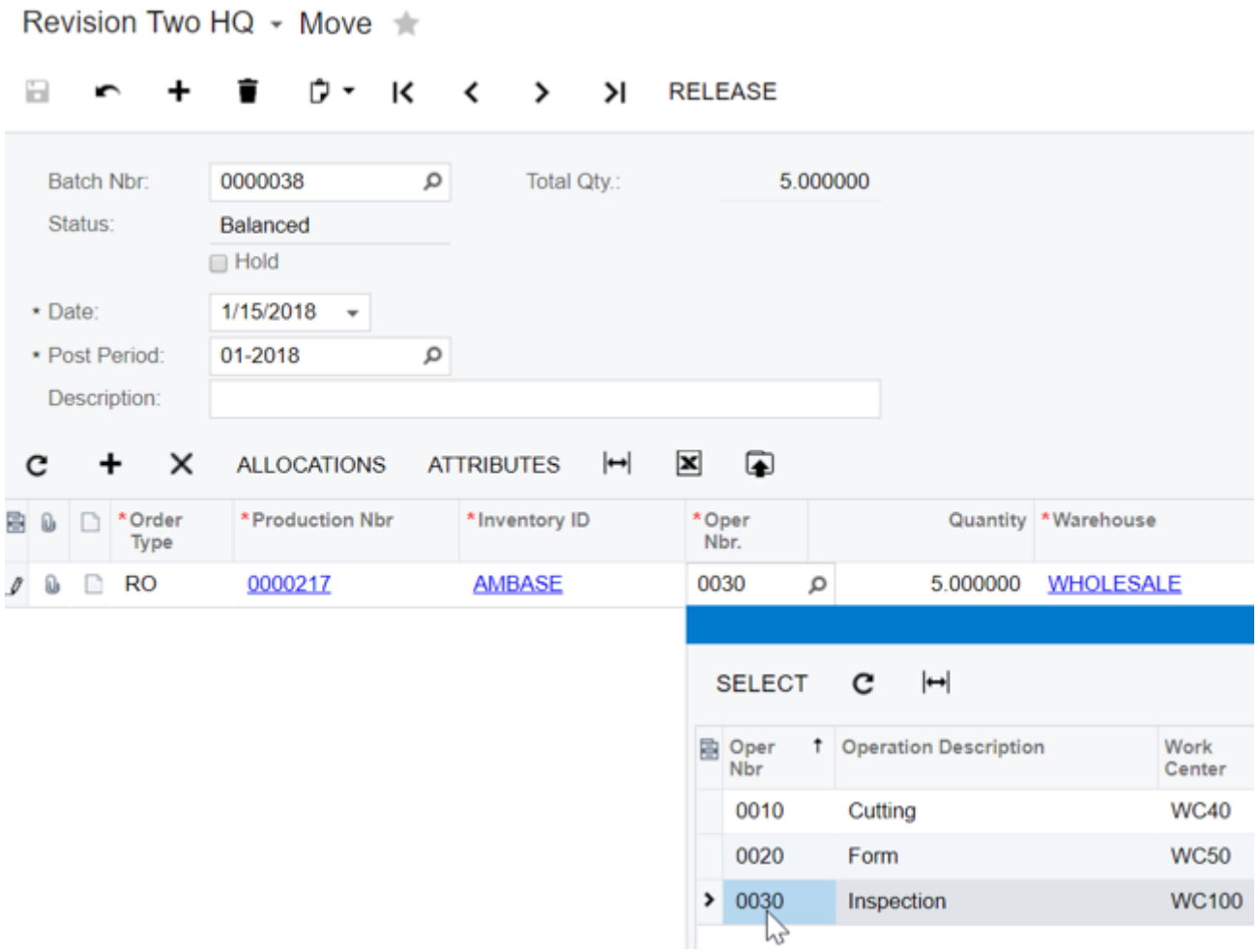
- A move transaction is how you “move” from one Operation or routing step to the next when BACKFLUSHING (Ex: The Cutting process is complete, so we are moving on to the Forming process)

- You **MUST** create a Move transaction for the LAST operation in order to complete production and close the Production Order when BACKFLUSHING. (If a prospect does not backflush, they can perform a move through labor transactions)
  - Users are not required to enter a Move transaction for each operation, unless the prospect’s business rules require it

- Enter the details of the MOVE in the details section, as shown in the screenshot

- **RELEASE** the transaction

- Return to Production Order to show that it has been closed, and the associated transactions have been added under the **Event History** tab based on the Move



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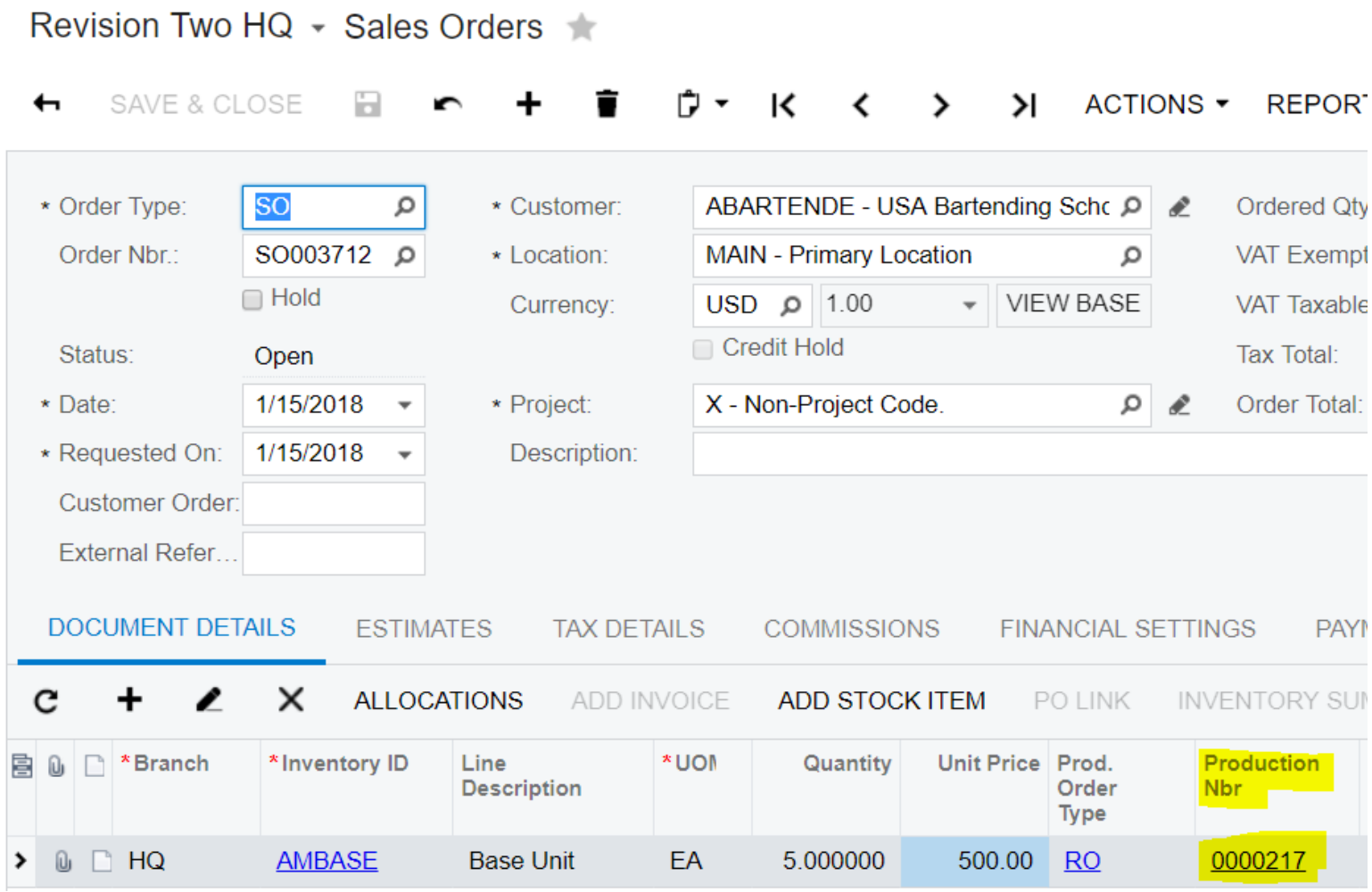
Make-to-Order Example

Make to Order

Manufacturers that use the Make-to-Order method typically start with a Sales Order and then link that Sales Order to the Production Order(s) needed to fulfill it

- Sales Orders Workspace > New Sales Order
  - Create a **new Sales Order** for the finished good you have been working with (Save)
- Click **Actions > Production Orders**
- Select the line item(s) you will be producing, **Add & Close**
- Will see the new Production Order gets linked to the Sales Order Line (highlighted in screenshot); drill into the Production Nbr



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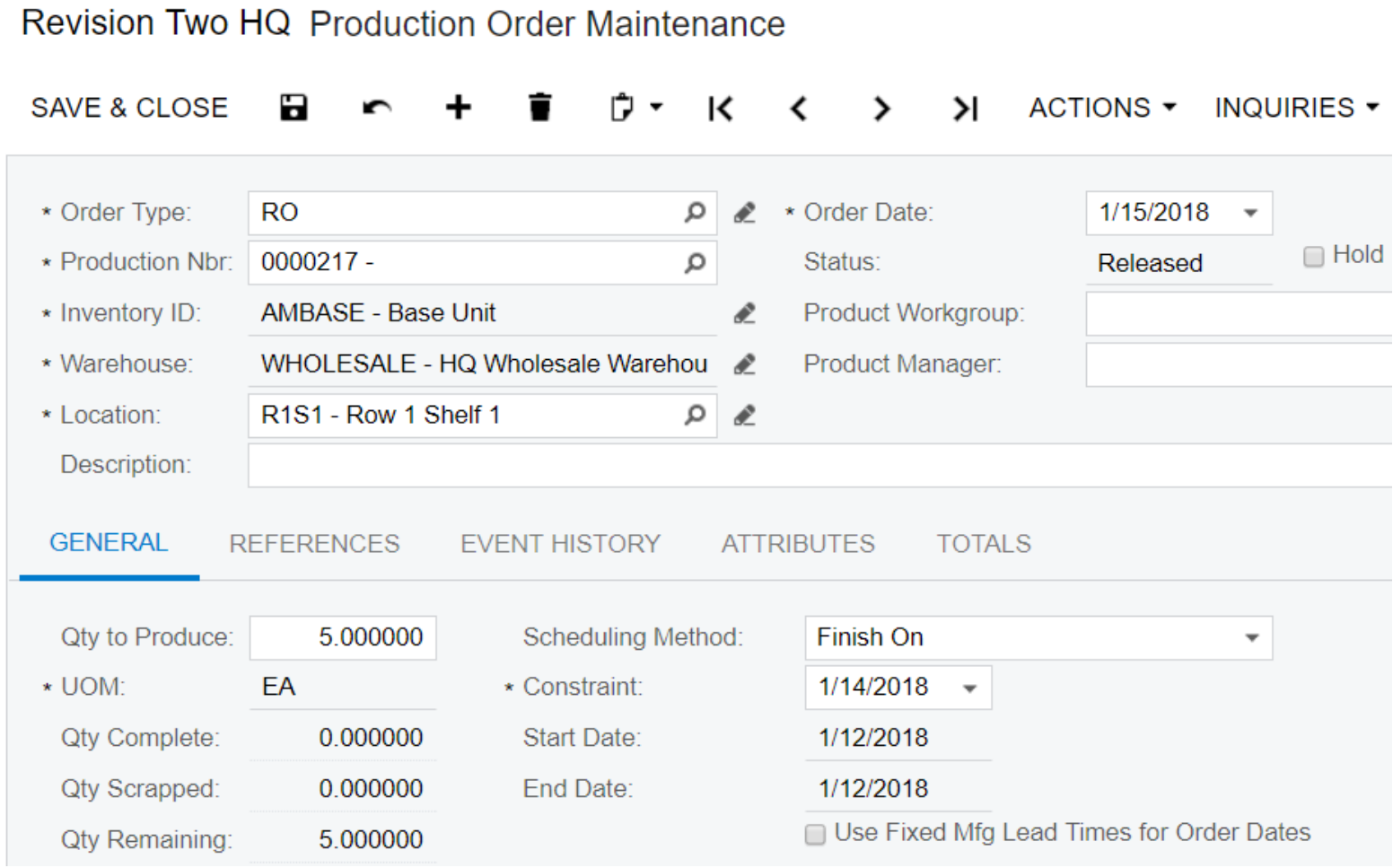
Production Order Maintenance

Actions > Release Order

Review the Production Order that has been generated from the Sales Order

- **General tab –** Qty to produce, Constraint Date vs Order Date
- **References tab** – refers back to the SO we started with, Source=BOM ID we reviewed earlier
- **Event History tab** – will see all transactions related to the Production Order here
- **Totals tab** – Planned vs Actual (Variance)



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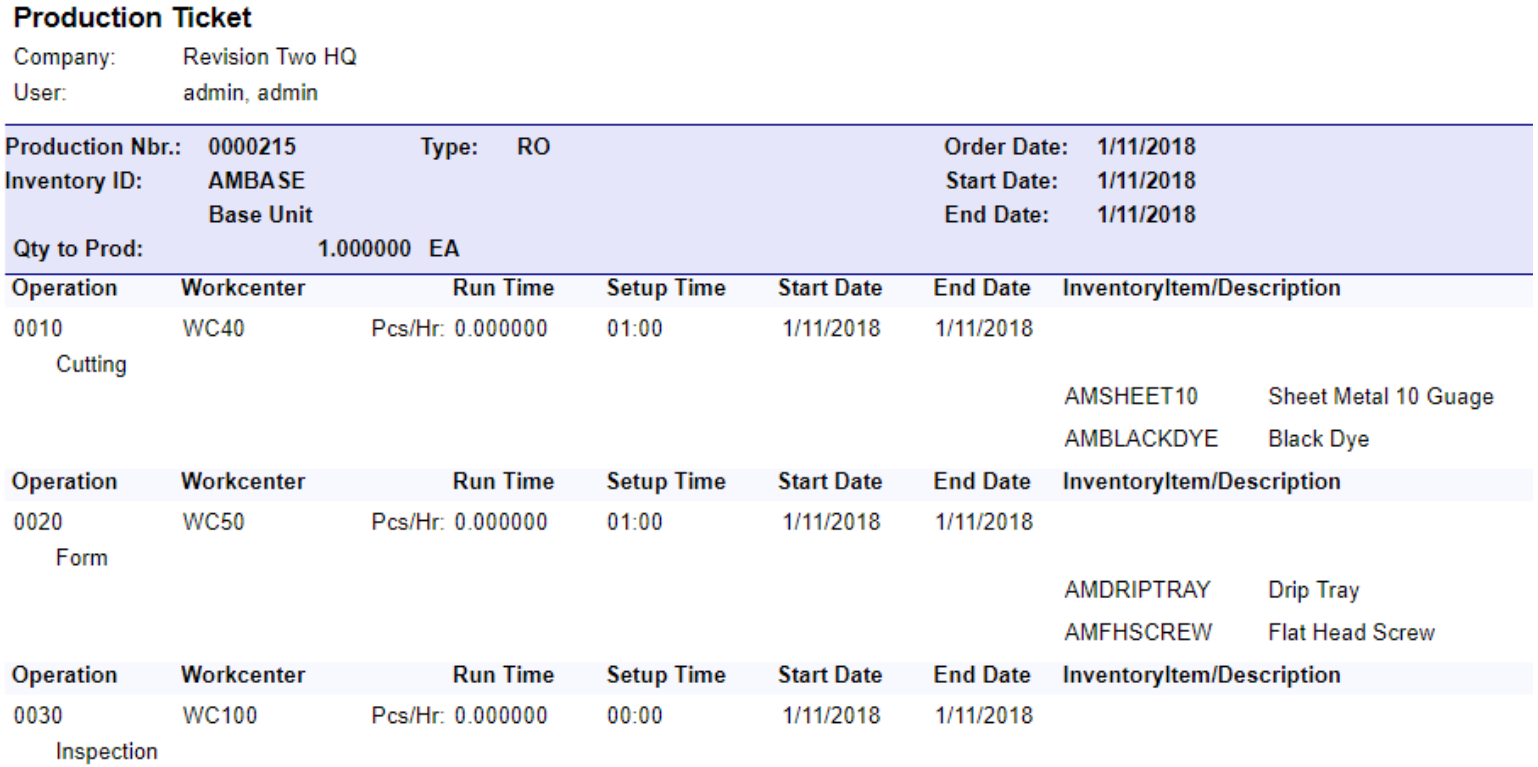

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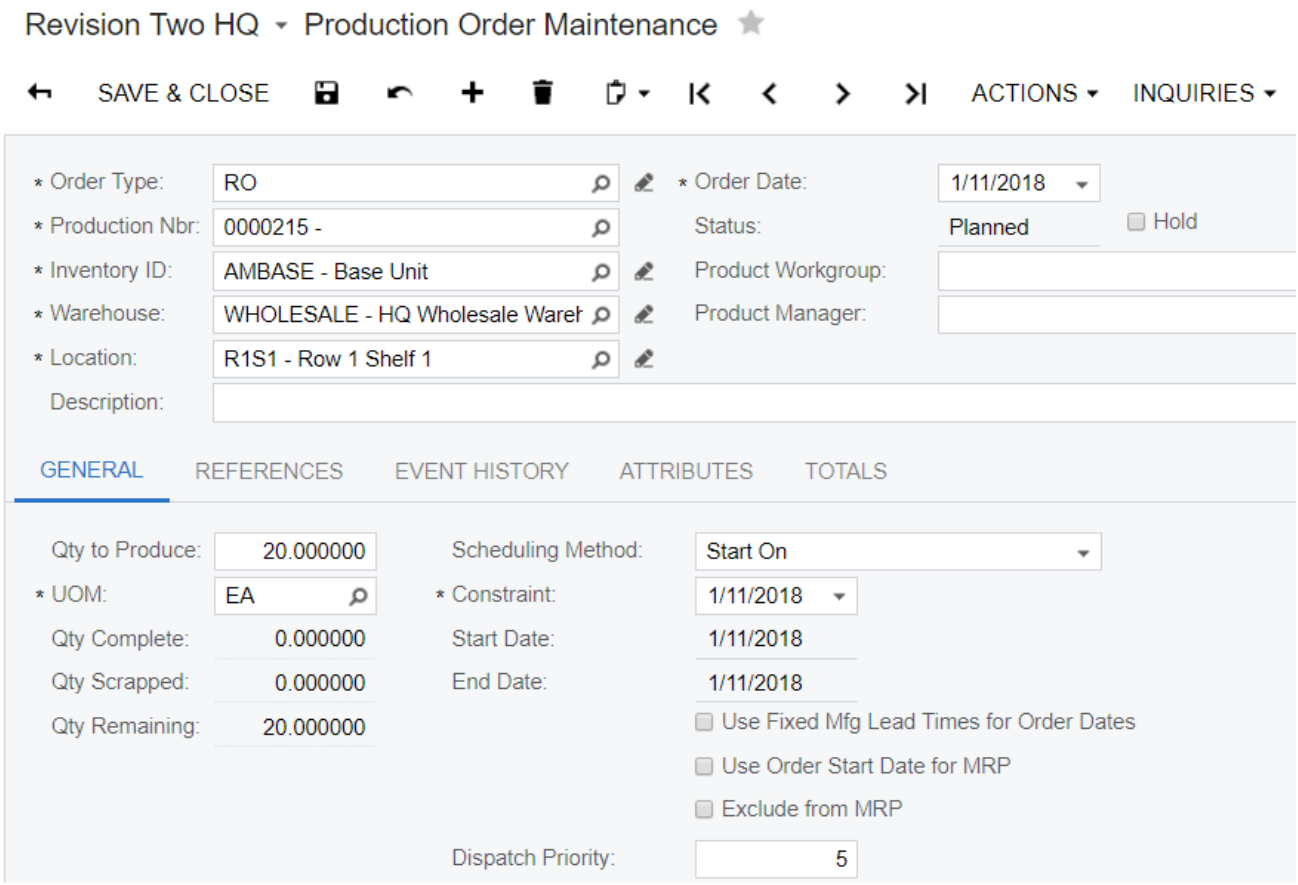

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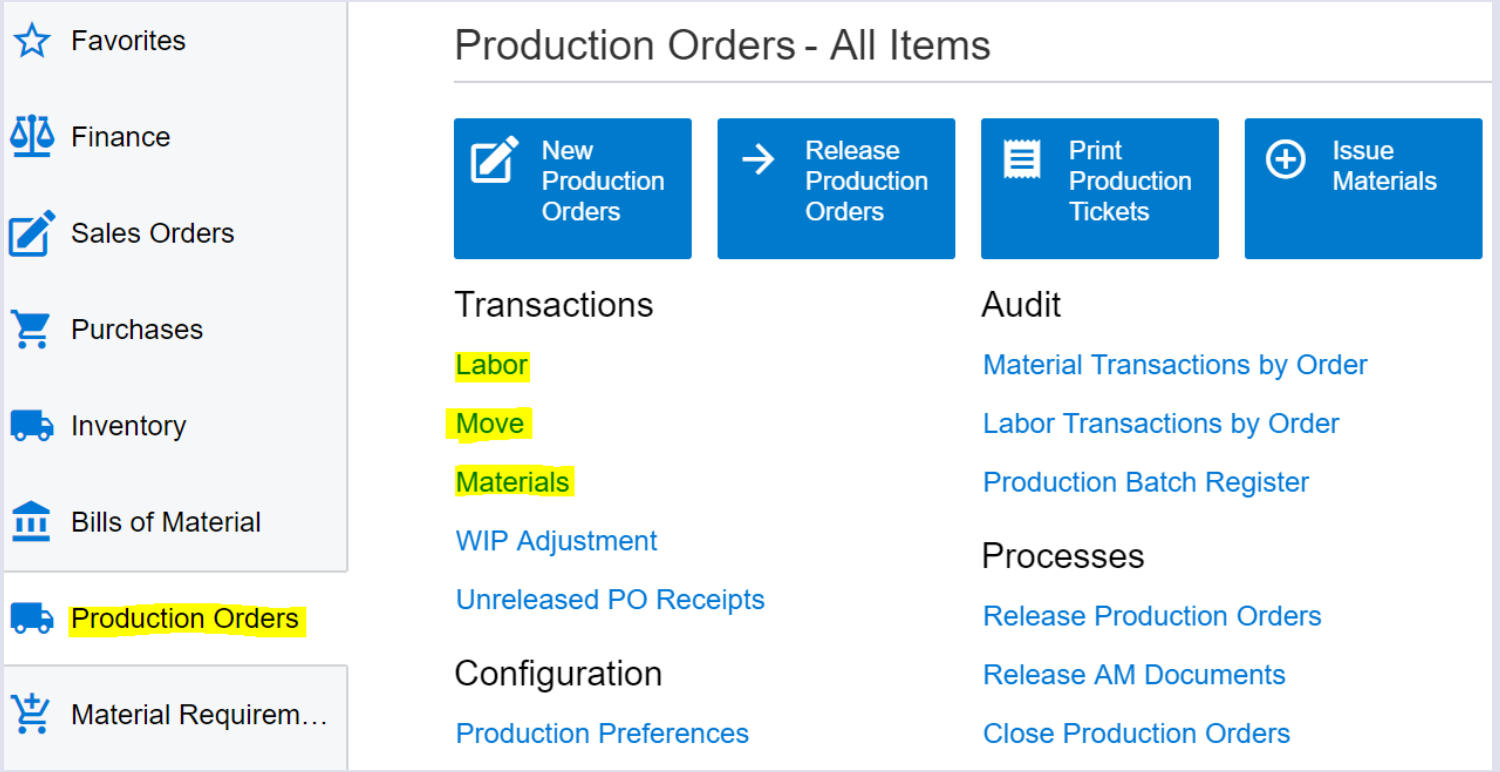

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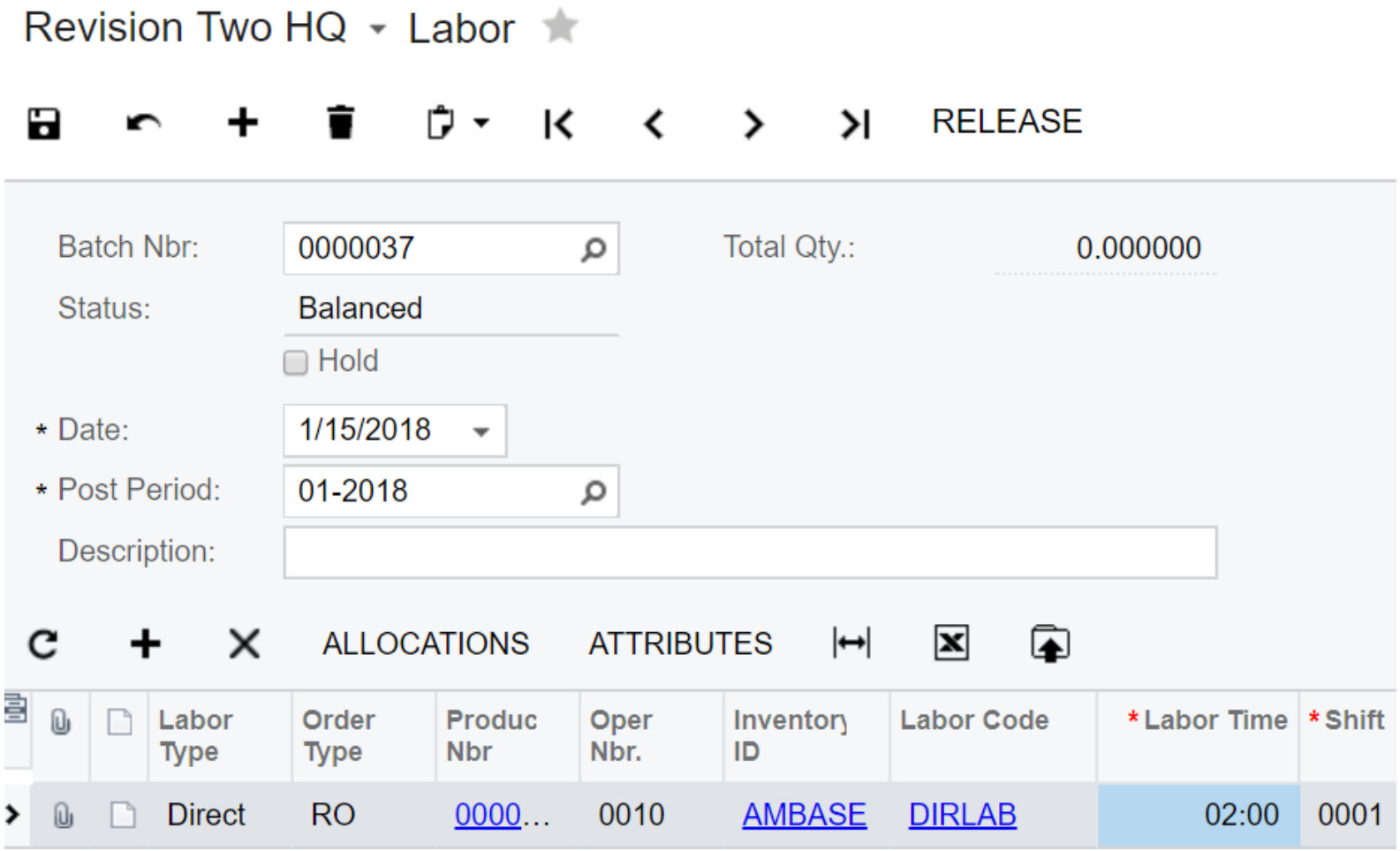

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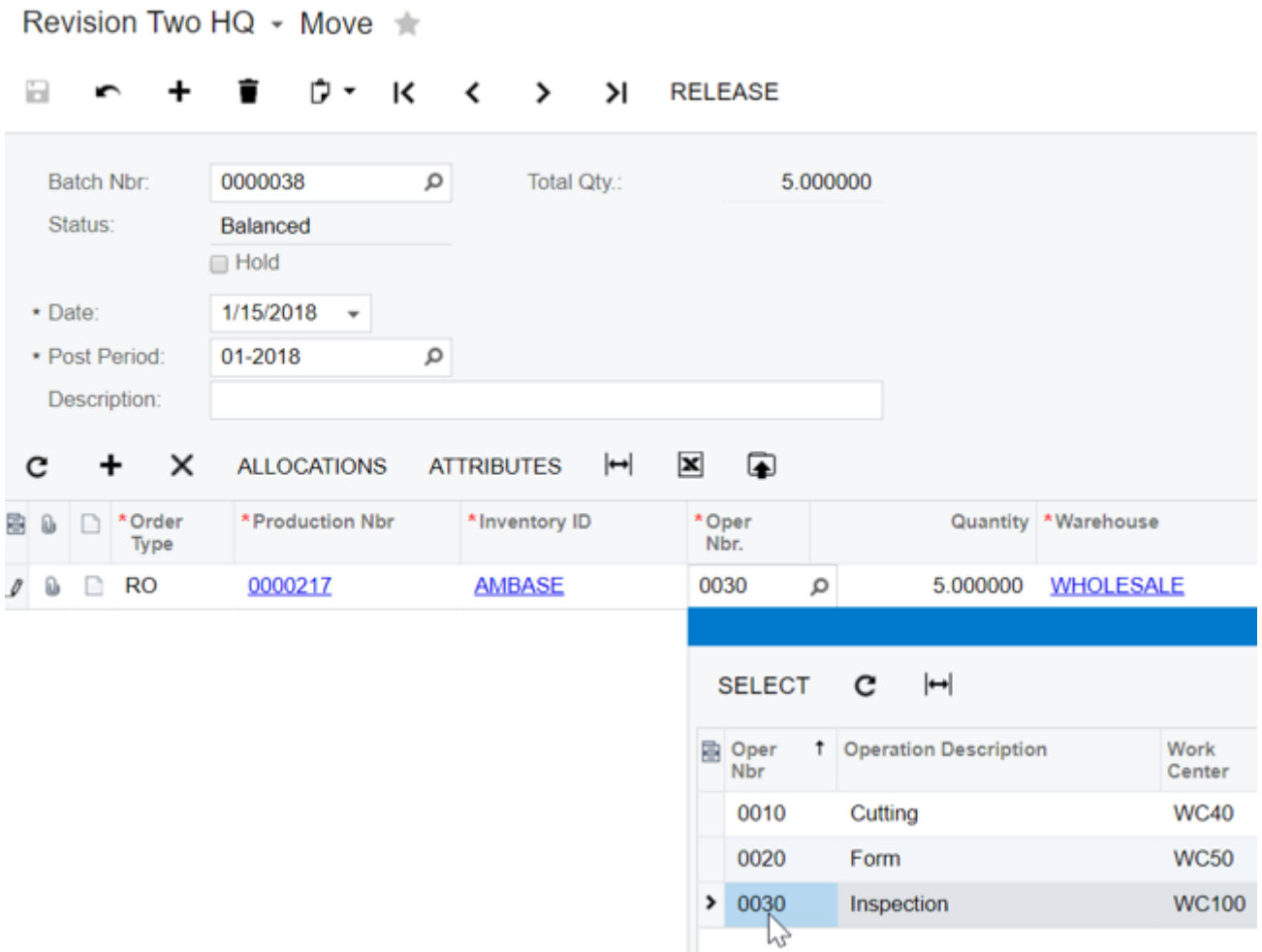

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Configure-to-Order Example

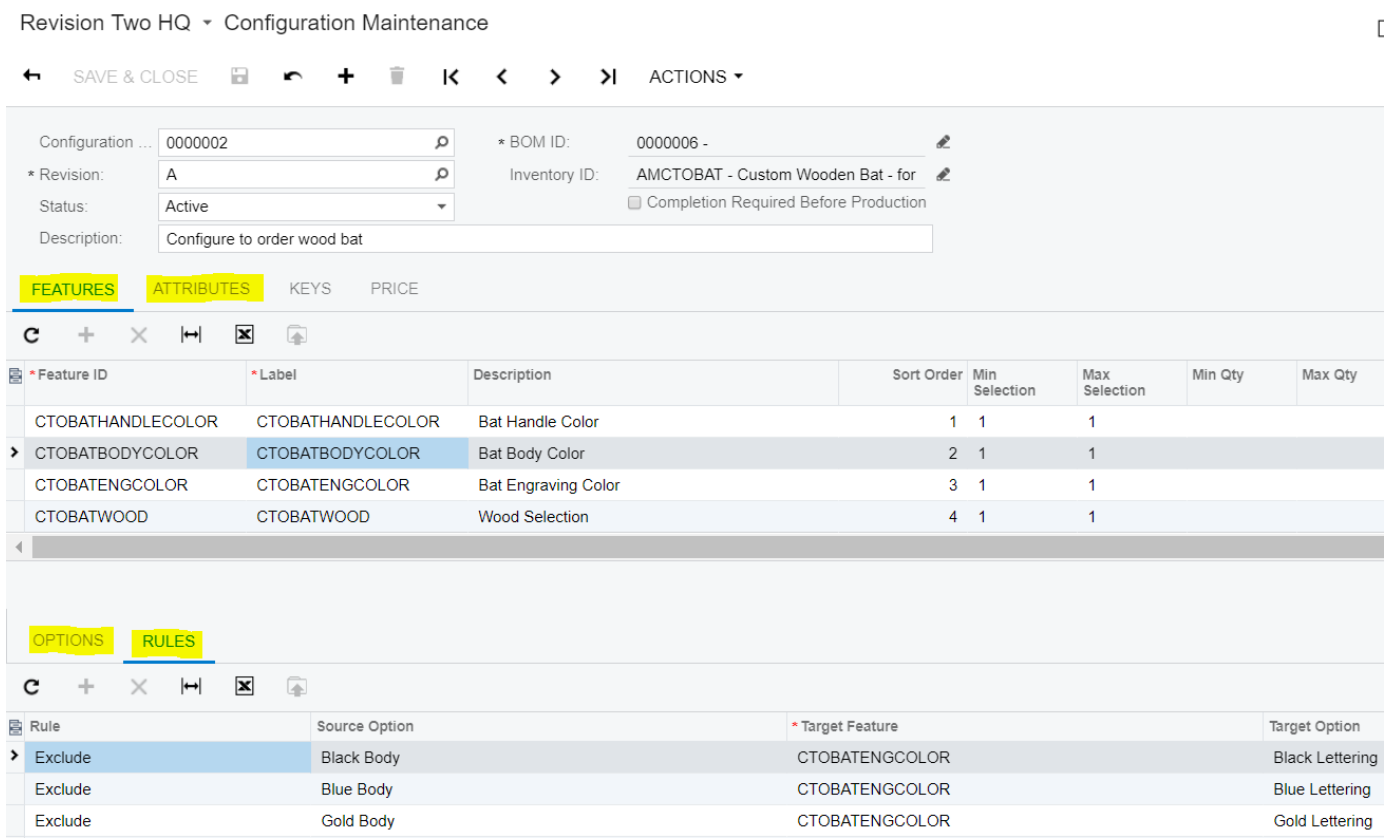
Configure to Order

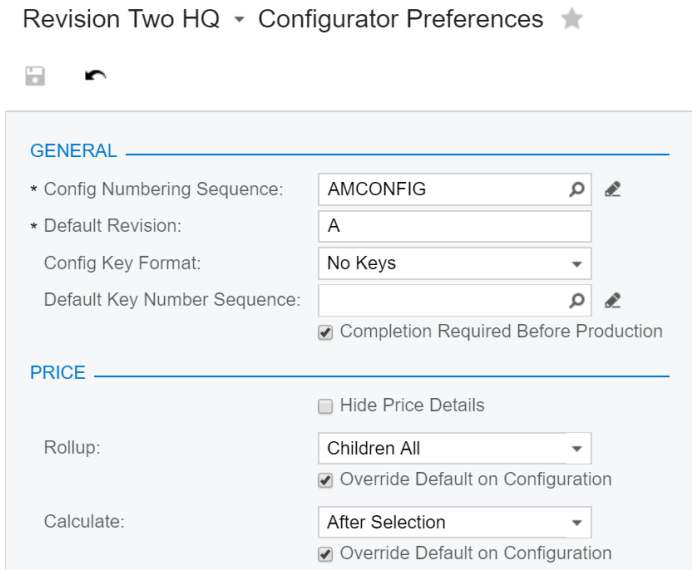
Product Configurator Workspace> Configuration Maintenance > select a Configuration ID

- The **Configuration Maintenance** screen is where you define the **Features, Attributes, Options, Rules** and more for your configurable items

Product Configurator Workspace> Configurator Preferences

- You set pricing rules and numbering sequences for the Product Configurator on the **Configurator Preferences** screen





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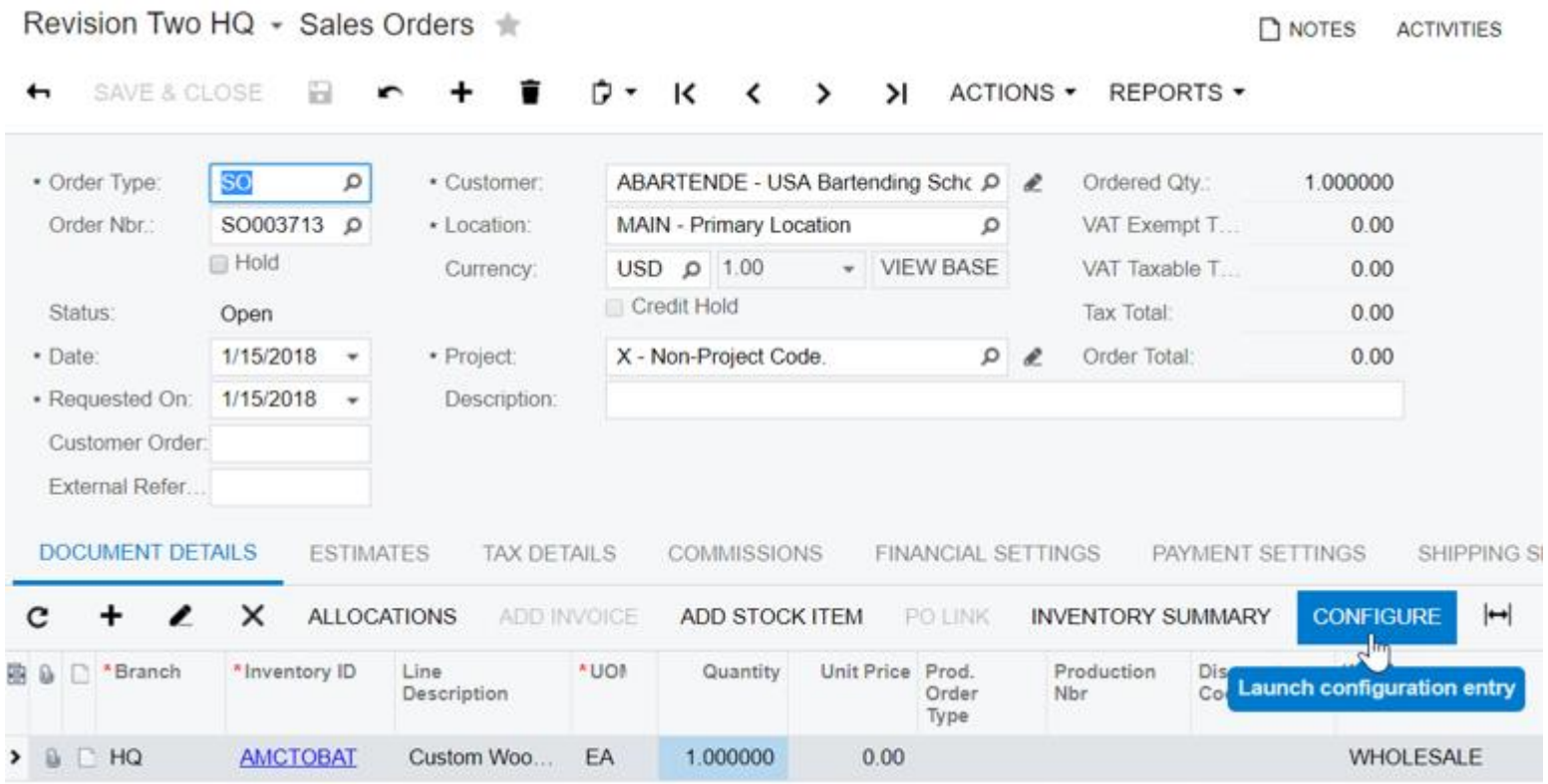
Configure to Order

Manufacturers that use the Configure-to-Order method typically start with a Sales Order and then link that Sales Order to the Production Order(s) needed to fulfill it

- Sales Orders Workspace > New Sales Order
  - Create a **new Sales Order** for a Configurable item (in the demo data, **AMCTOBAT** is a Custom Wooden Bat)

- When you Save the Sales Order, you will see the CONFIGURE button becomes available – Click **CONFIGURE** to launch the Configuration Entry screen



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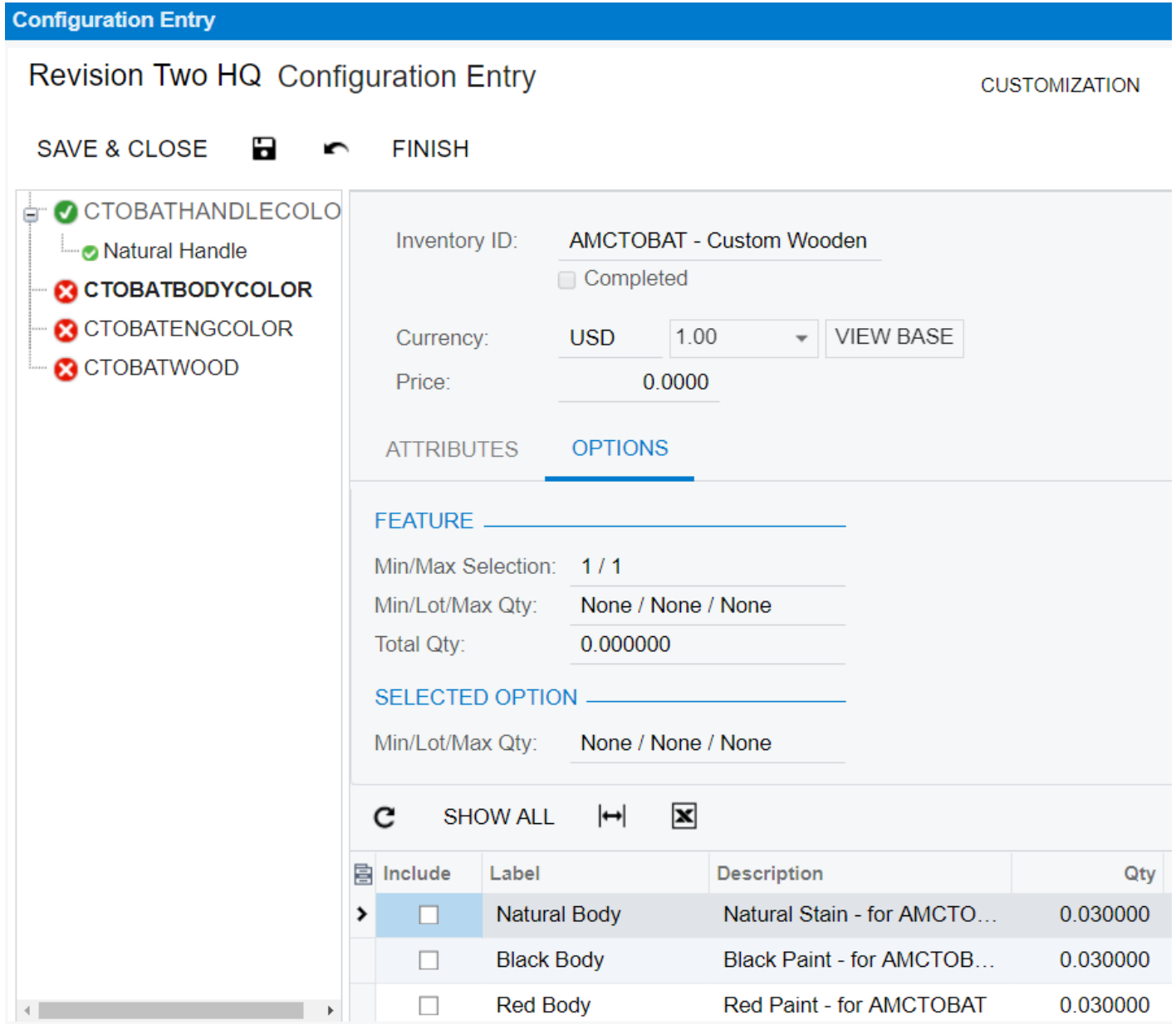
Configuration Entry

The pane on the Left hand side of the Configuration Entry screen shows the Features (or “Questions”) and the right hand side shows the Attributes and Options (or “Answers” to the questions)

- When you check (select) an option and the Configuration rules have been met, a green checkmark will appear to indicate you can move on to the next one
- The Price of the item will change depending on the Options you select
  - Pricing rules are determined on the **Configurator Preferences** screen
- When all required Options have been selected, click **“FINISH”** and the custom configuration options get tagged to the line item
- From the Sales Order, select **ACTIONS > Production Orders** to create associated Production order
  - Select the line item(s) you will be producing, **Add & Close**
- Will see the new Production Order gets linked to the Sales Order Line; drill into the Production Order



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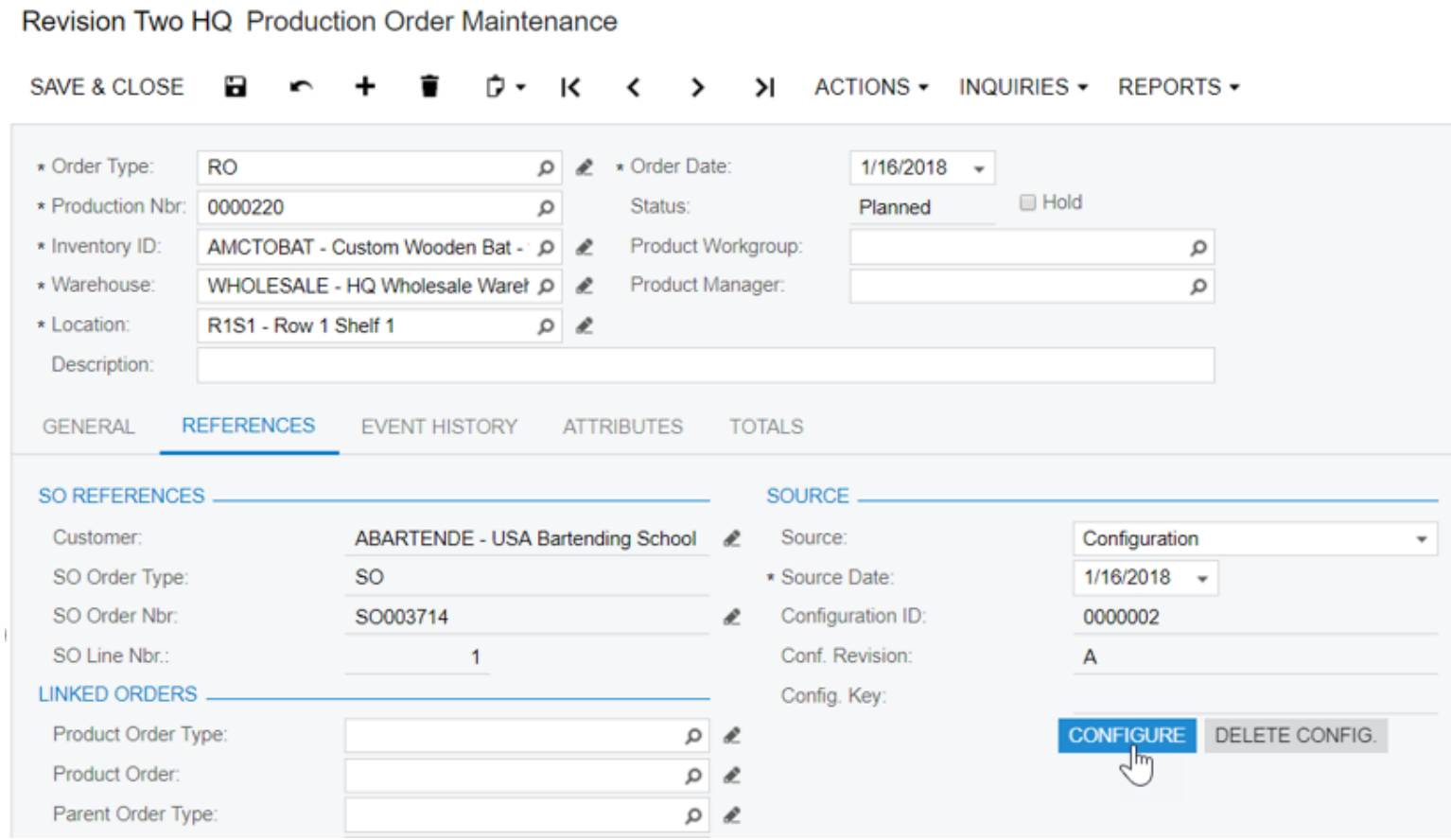
Production Order Maintenance

Actions > Release Order

Review the Production Order that has been generated from the Sales Order. Configuration details will be attached.

- **General tab –** Qty to produce, Constraint Date vs Order Date
- **References tab** – refers back to the SO we started with, Source=Configuration
  - Click **CONFIGURE** button to review the Configuration details
- **Event History tab** – will see all transactions related to the Production Order here
- **Attributes tab –** the configurable attribute details that you selected
- **Totals tab** – Planned vs Actual (Variance)



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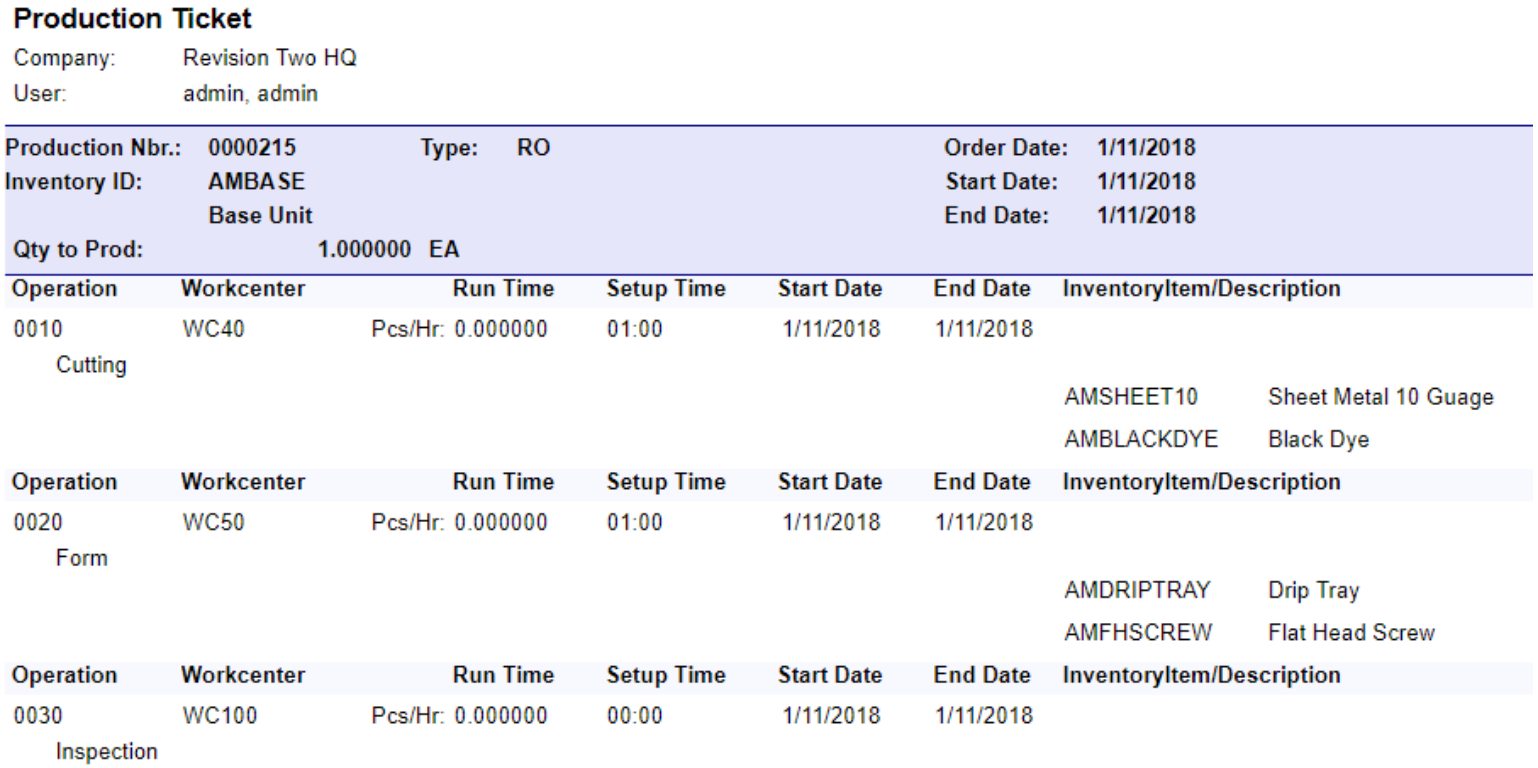
Production Order Maintenance

REPORTS > Production Ticket

- The Production Ticket, often referred to as the “Job Traveler” is usually printed on the shop floor and lists the **Operations, Workcenters, Materials, Steps**, etc that are required to complete the Production Order



Production Ticket

Company: Revision Two HQ
User: admin, admin

Production Nbr.:	**0000215**	**Type:**	**RO**		**Order Date:**	**1/11/2018**
Inventory ID:	**AMBASE**				**Start Date:**	**1/11/2018**
	Base Unit				**End Date:**	**1/11/2018**
Qty to Prod:	**1.000000**	**EA**				

Operation	Workcenter	Run Time	Setup Time	Start Date	End Date	InventoryItem/Description	
0010 Cutting	WC40	Pcs/Hr: 0.000000	01:00	1/11/2018	1/11/2018		
						AMSHEET10	Sheet Metal 10 Guage
						AMBLACKDYE	Black Dye
Operation	**Workcenter**	**Run Time**	**Setup Time**	**Start Date**	**End Date**	**InventoryItem/Description**	
0020 Form	WC50	Pcs/Hr: 0.000000	01:00	1/11/2018	1/11/2018		
						AMDRIPTRAY	Drip Tray
						AMFHSCREW	Flat Head Screw
Operation	**Workcenter**	**Run Time**	**Setup Time**	**Start Date**	**End Date**	**InventoryItem/Description**	
0030 Inspection	WC100	Pcs/Hr: 0.000000	00:00	1/11/2018	1/11/2018		

INQUIRIES > Production Detail

- The Production Details shows the detailed BOM information for that specific Production Order
- You can make changes to the Production Detail if necessary

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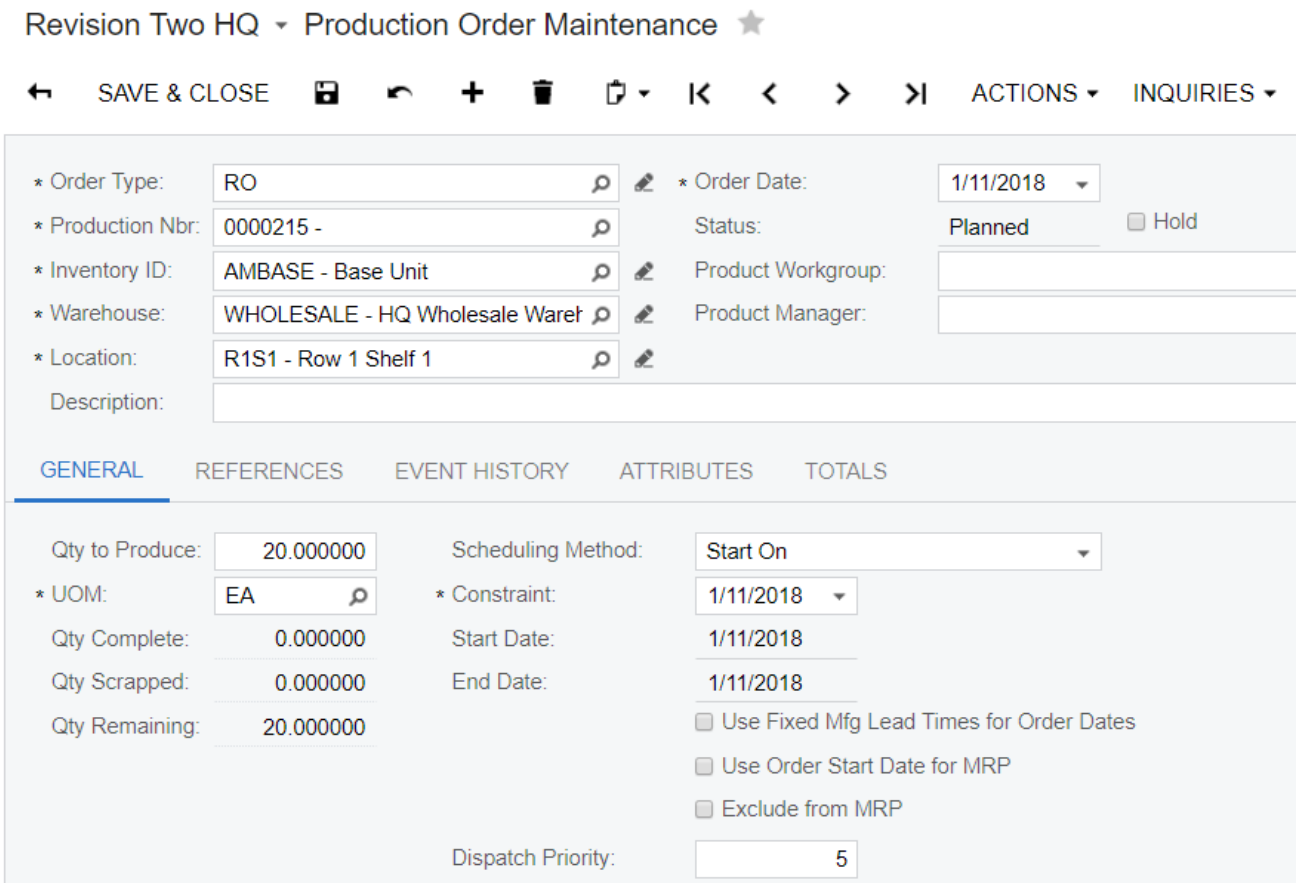
Production Order Reports

At any time throughout the production process, users can return to dashboards, reports, and inquiries in order gain visibility into the current status of production

Reports:

- **Production Summary**
- **Work in Process**
- **Work Center Dispatch**
- **Production Order Performance**



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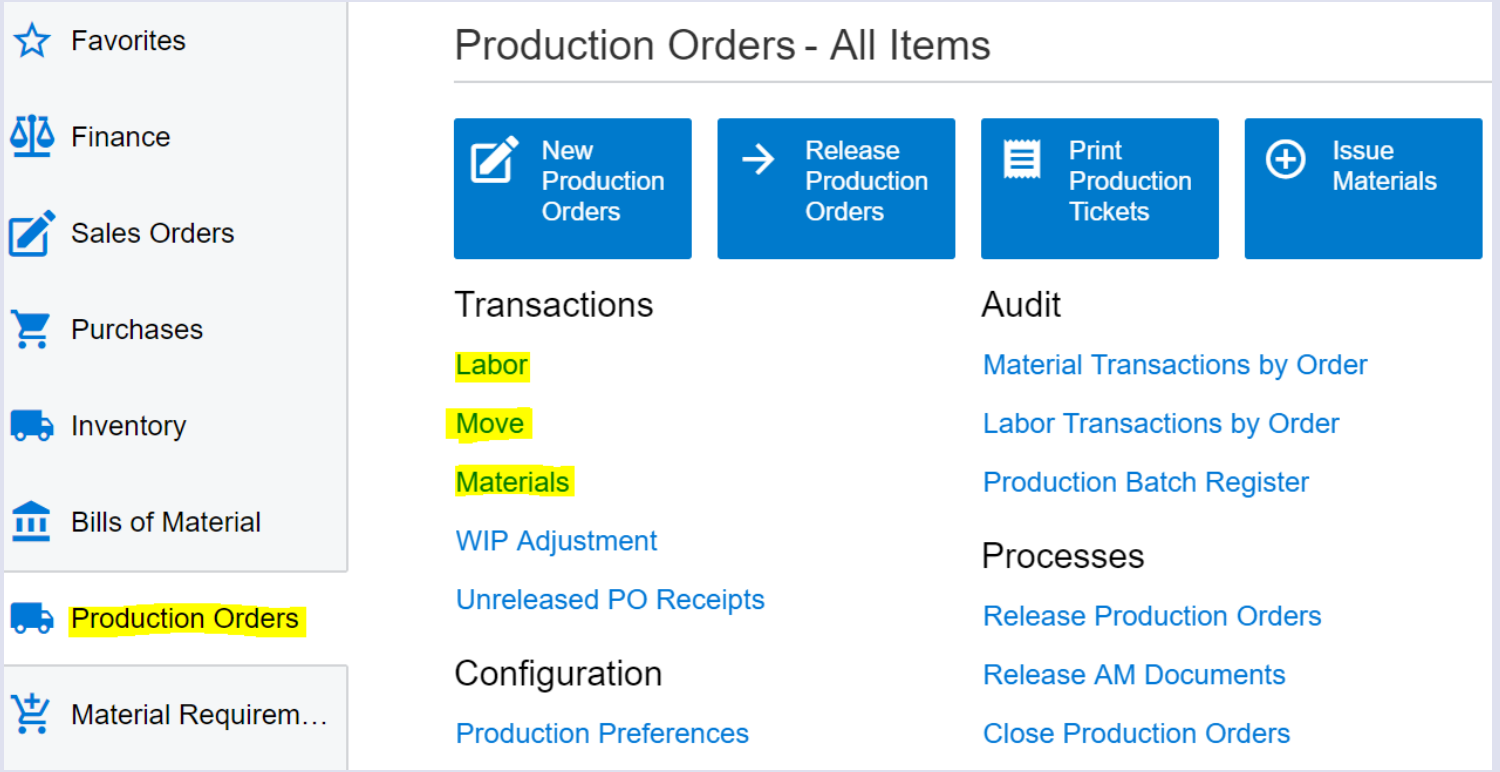
Production Order Maintenance

Notes for user

The next step in your demo depends on if the prospect is BACKFLUSHING their labor and materials or not.

- **If the prospect does NOT backflush, you will enter Labor and Material transactions next**
- **If the prospect DOES backflush, you will enter a Move transaction next** (a Move transaction automatically generates the Material and Labor transactions for a specific BOM/production order)



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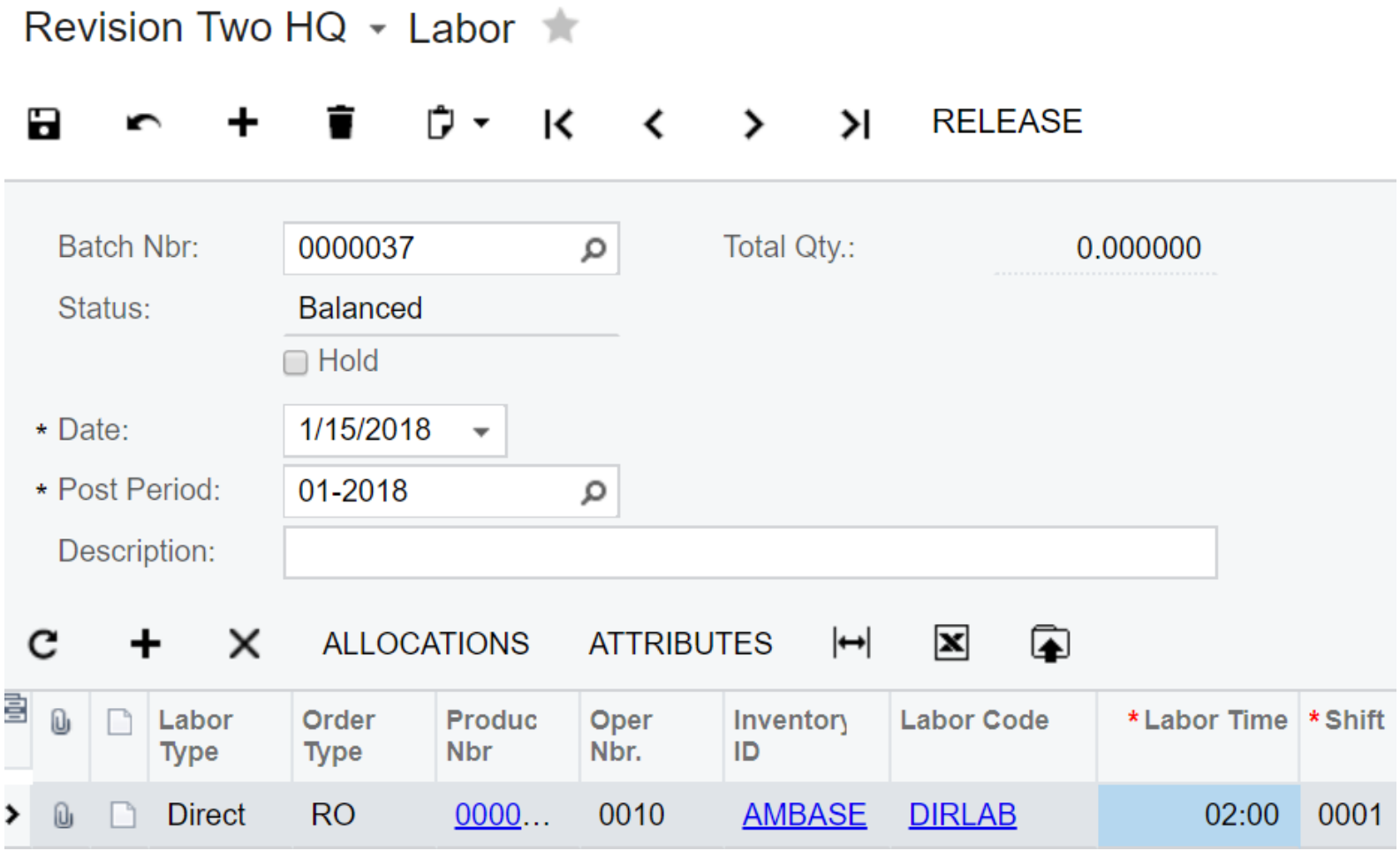
Labor Transaction Example

For a prospect who does not Backflush, enter a Labor Transaction and/or Material transaction

- On the **Labor screen**, enter the labor lines in the detail section at the bottom
- Select the **Production #** you are adding labor to, the **Labor hours** spent, the **Shift**, etc
- Follow the same process for a Material transaction on the **Materials screen** if necessary
- Return to the Production Order to show the transactions have been added under the Event History tab and Totals tab



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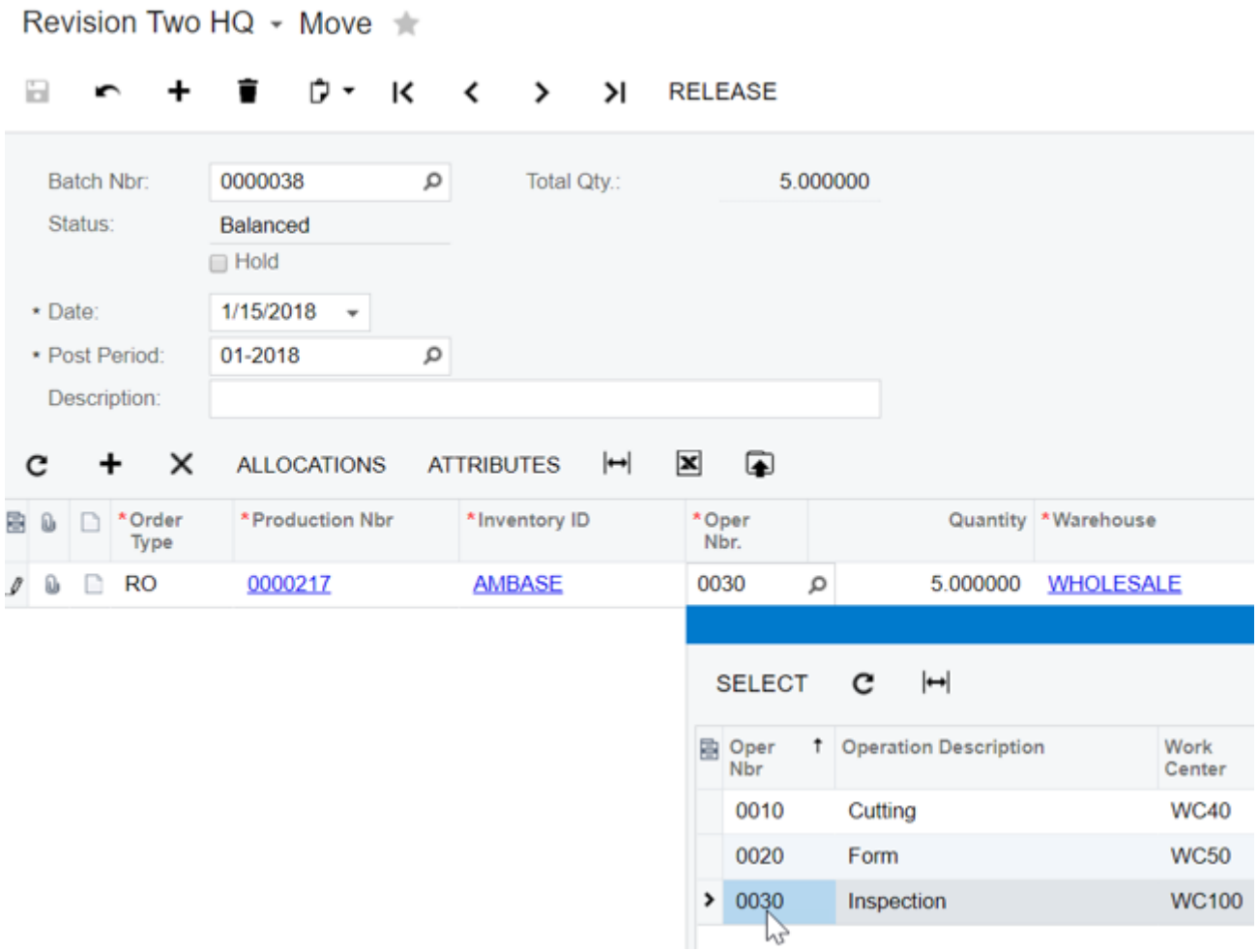
Move Transaction

- A move transaction is how you “move” from one Operation or routing step to the next when BACKFLUSHING (Ex: The Cutting process is complete, so we are moving on to the Forming process)
- You **MUST** create a Move transaction for the LAST operation in order to complete production and close the Production Order when BACKFLUSHING. (If a prospect does not backflush, they can perform a move through labor transactions)
  - Users are not required to enter a Move transaction for each operation, unless the prospect’s business rules require it
- Enter the details of the MOVE in the details section, as shown in the screenshot
- **RELEASE** the transaction
- Return to Production Order to show that it has been closed, and the associated transactions have been added under the **Event History** tab based on the Move



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