


Dynamics 365 Business Central Assembly Orders Posting to General Ledger

The only thing on assembly orders that creates entries in the general ledger is the posting of the assembly order. On manufacturing production orders, you can post multiple things multiple times (consumption, output, subcontracting, etc.) but for assembly orders there is only one thing to post which is the completion of a number of assemblies. Posting an assembly order consumes the components, posts the labor in terms of resources (if any) and outputs the assembly item.

Below is an example of how it works and what gets posted into the general ledger on what account.

Setup of Assembly Item


In this example I will use a demo item 1896-S ATHENS Desk modified to be a serialized assembly item. I have added a resource to the assembly BOM according to below. The resource will be used to add some labor cost to the assembly.

1896-S-ASSM · ATHENS Desk ✓ Saved 

Assembly BOM Search + New Edit List Delete Item BOM Related Fewer options Share Filter Menu Info

Type	No.	Description	Assembly BOM	Quantity per	Unit of Measure Code	Resource Usage Type	Main Item
→ Item	7000-NA	Table Top (no assembly)	No	1	PCS		<input type="checkbox"/>
Item	7001	Table Leg	No	4	EA		<input type="checkbox"/>
Item	7003	Leg Brackets	No	4	PCS		<input type="checkbox"/>
Item	7002	Fastener	No	16	EA		<input type="checkbox"/>
Resource	ASSEMBLY	Assembly	No	0.5	HOURL	Direct	<input type="checkbox"/>

The resource added has the direct unit cost of 75 and an indirect cost of 10 %

Resource Card ASSEMBLY · Assembly ✓ Saved 

Process Report Resource Navigate Prices & Discounts Planning More options

General Show more Details Attachments (0)

No. Last Date Modified 5/18/2022

Name Use Time Sheet ☒

Type Time Sheet Owner User

Base Unit of Measure Time Sheet Approver Us...

Search Name Graphical Scheduler

Resource Group No. Sort Order

Blocked ☒

Invoicing

Direct Unit Cost Tax Group Code

Indirect Cost % Gen. Prod. Posting Group

Unit Cost VAT Prod. Posting Group

Price/Profit Calculation Default Deferral Template

Profit % Automatic Ext. Text ☒

Unit Price IC Partner Purch. G/L Ac...

Resource Statistics

Resource No.	ASSEMBLY
Capacity	0
Unused Capacity	-0.5
Invoiced	0.00
Invoiced %	0.0
Usage (Cost)	39.38
Profit	-39.38
Profit %	0.0

The item assembled is in this case setup with FIFO costing method, and a cost rollup has been performed when the item was created. Note that the costs of the resource in the assemble BOM gets roll-up in the capacity cost fields.

BOM Cost Shares

✓ Saved

Item Filter1896-S-ASSM

Show WarningsBOM Cost Share DistributionMore options

Type	No.	Description	Qty. per Parent	Qty. per Top Item	Unit of Measure Code	Replenishment System	Roll-up Material Cost	Roll-up Capacity Cost	Roll-up Capacity Overhead Cost	Total Cost
Item	1896-S-ASSM	ATHENS Desk		1	PCS	Assembly	775.40	37.50	3.75	816.65
Item	7000-NA	Table Top (no assembly)	1	1	PCS	Purchase	500.00			500.00
Item	7001	Table Leg	4	4	EA	Purchase	240.00			240.00
Item	7003	Leg Brackets	4	4	PCS	Purchase	5.00			5.00
Item	7002	Fastener	16	16	EA	Purchase	30.40			30.40
Resource	ASSEMBLY	Assembly	0.5	0.5	HOURL	Transfer		37.50	3.75	41.25

Also note the resource usage type option in the assembly BOM, if this is set to direct then the hours are per unit produced, if this is set to fixed then it is per assembly order (like run time vs. setup time). So, if you set it to be fixed you need to populate the lot size field on the item card to get a proper standard cost roll-up where the cost of the capacity is allocated towards a certain quantity. (the same way as you would do for setup costs on items that are produced using production orders).

The Assembly Order

The example will use an assembly order for 1 pcs of the ATHENS Desk according to below.

Assembly Order

✓ Saved

A00024 · ATHENS Desk

ProcessReleaseWarehousePostingPrintNavigateOrderMore options

General

No. A00024Due Date 5/8/2021

Item No. 1896-S-ASSMStarting Date 5/8/2021

Description ATHENS DeskEnding Date 5/8/2021

Quantity 1Remaining Quantity 1

Quantity to Assemble 1Assembled Quantity 0

Unit of Measure Code PCSAssemble to Order No

Posting Date 5/8/2021Status Open

LinesManageMore options

Avail. Warni...	Type	No.	Description	Location Code	Unit of Measure Code	Quantity per	Quantity
	Item	7000-NA	Table Top (no assembly)	01A	PCS	1	1
	Item	7001	Table Leg	01A	EA	4	4
	Item	7003	Leg Brackets	01A	PCS	4	4
	Item	7002	Fastener	01A	EA	16	16
→	Resource	ASSEMBLY	Assembly		HOURL	0.5	0.5
						0	0

Posting

Variant CodeCost Amount 795.09

Location Code 01ADepartment Code

Bin CodeCustomergroup Code

Unit Cost 795.09

DetailsAttachments (0)

Assembly Item - Details

Item No. 1896-S-ASSM

Standard Cost 816.65

Unit Price 2,500.00

Component - Item

Item No. -

Required Quantity -

Availability

Due Date -

Item Availability -

Available Inventory -

Scheduled Receipt -

Reserved Receipt -

Gross Requirement -

Reserved Requirement -

Item

Base Unit of Measure -

Unit of Measure Code -

Qty. per Unit of Measure -

Unit Price -

Unit Cost -

Standard Cost -

No. of Substitutes -

Replenishment System -

Vendor No. -





Component - Resource Details



Resource No. -

Type -

An assembly order has a statistic page that shows the cost breakdown where the standard cost comes from the fields on the item card, the expected costs come from the assembly order lines and the actual costs comes from the transactions posted against the order (just like production orders).

Assembly Order Statistics



✓ Saved  

A00024 · ATHENS Desk



	Standard Cost	Expected Cost	Actual Cost	Dev. %	Variance	
Material Cost	775.40	775.40	0.00	-100	-775.40	
Resource Cost	37.50	37.50	0.00	-100	-37.50	
Resource Overhead	3.75	3.75	0.00	-100	-3.75	
Assembly Overhead	0.00	0.00	0.00	0	0.00	
Total Cost	816.65	816.65	0.00	-100	-816.65	

In addition to the statistics page is the unit cost field on the invoicing tab (and a cost amount which is the unit cost multiplied with the quantity). If the assembly item is a standard cost item, then this unit cost is the standard cost from the item card, if the assembly item not a standard cost item, then this unit cost is the sum of the costs of the components (and it's updated automatically if components are changed).

Lines

Manage

More options



Avail. Warni...	Type	No.	Description	Location Code	Unit of Measure Code	Quantity per	Quantity
	Item	7000-NA	Table Top (no assembly)	01A	PCS	1	1
→	Item	7001	Table Leg	01A	EA	4	4
	Item	7003	Leg Brackets	01A	PCS	4	4
	Item	7002	Fastener	01A	EA	16	16
	Resource	ASSEMBLY	Assembly		HOUR	0.5	0.5

Posting

Variant Code

Location Code

Bin Code

Unit Cost

Cost Amount

Department Code

Customergroup Code

795.09

795.09

Availability

Due Date

Item Availability

Available Inventory

Scheduled Receipt

Reserved Receipt

Gross Requirement

Reserved Requirement

Item

Base Unit of Measure

Unit of Measure Code

Qty, per Unit of Measure

Unit Price

Unit Cost

Standard Cost

No. of Substitutes

Replenishment System

Vendor No.

Component - Resource Details

Resource No.

Type

05/08/21

131

135

4

EA

EA

1.00

60.00

Purchase

Posting the Assembly Order

Now we post the assembly order; this consumes components and resources according to the quantity to consume on the assembly order line and outputs the quantity according to the quantity to assemble in the header of the assembly order. If you change the quantities to consume on the lines a variance is posted into the P&L

The screenshot displays the 'Assembly Order' form for 'A00024 · ATHENS Desk'. The 'General' tab is active, showing fields for No., Item No., Description, Quantity, Quantity to Assemble (highlighted with a red box), Unit of Measure Code, Posting Date, Due Date, Starting Date, Ending Date, Remaining Quantity, Assembled Quantity, Assemble to Order, and Status. A modal dialog box is open in the center, asking 'Do you want to post the Order?' with 'Yes' and 'No' buttons. Below the dialog is a table of lines with columns for Avail. Warn..., Type, No., Description, and quantities. The 'Posting' section at the bottom shows fields for Variant Code, Location Code, Bin Code, Unit Cost, Cost Amount, Department Code, and Customergroup Code. The right sidebar contains 'Details' and 'Attachments (0)' tabs, with 'Assembly Item - Details' and 'Component - Item' sections showing various attributes like Item No., Standard Cost, Unit Price, Availability, and Item details.

Avail. Warn...	Type	No.	Description	Quantity	Quantity to Assemble	Unit of Measure Code
	Item	7000-NA	Table Top (no asse			
→	Item	7001	Table Leg			
	Item	7003	Leg Brackets			
	Item	7002	Fastener			
	Resource	ASSEMBLY	Assembly			

Variant Code	Location Code	Bin Code	Unit Cost	Cost Amount	Department Code	Customergroup Code
	01A		795.09	795.09		

When an assembly order is posted it becomes a posted assembly order. And if the remaining quantity is 0 the original assembly order is deleted.

If we navigate to the posted assembly order, we see all the transactions that were created during the posting (just like on any other posted document in BC).

Find entries

✓ Saved



Document No.
External Document No.

Posting Date

Show Related Entries
 Find
 Print...

Related Entries		No. of Entries
→	Posted Assembly Order	1
	G/L Entry	16
	Item Ledger Entry	5
	Value Entry	8
	Res. Ledger Entry	1
	Capacity Ledger Entry	1

If we first look at the item ledger entries, we see that there is an assembly output for the assembly part and assembly consumptions for the components.

Item Ledger Entries



Item Ledger Entries: All ▾ | Search Entry | More options



Posting Date ▼	Entry Type	Document Type	Document No. ▼	Item No.	Serial No.	Quantity	Invoiced Quantity	Remaining Quantity	Sales Amount (Actual)	Cost Amount (Actual)
5/8/2021	Assembly Output	Posted Assembly	A00008	1896-2-ASSM	SN20220508-001	1	1	1	0.00	816.65
5/8/2021	Assembly Consumption	Posted Assembly	A00008	7002	—	-16	-16	0	0.00	-30.40
5/8/2021	Assembly Consumption	Posted Assembly	A00008	7003	—	-4	-4	0	0.00	-5.00
5/8/2021	Assembly Consumption	Posted Assembly	A00008	7001	—	-4	-4	0	0.00	-240.00
5/8/2021	Assembly Consumption	Posted Assembly	A00008	7000-NA	—	-1	-1	0	0.00	-500.00

Note that one of the items were serial number tracked, and as you might know the serial numbers are on the item ledger entries, so you get one transaction per serial number.

We also get a resource ledger entry for the resource that was on the assembly order. In this case 4 hours for a total cost of 198.

Resource Ledger Entries



Search Find entries... | More options



Posting Date ↓ ▼	Entry Type	Document No. ▼	Resource No. ↓	Description	Department Code	Customergro... Code	Work Type Code	Quantity	Unit of Measure Code	Total Cost	Total Price
5/8/2021	Usage	A00008	ASSEMBLY	Assembly				0.5	HOUR	41.25	0.00

And the general ledger entries as below.

General Ledger Entries: All										
Search Edit List Process Entry Actions Related Fewer options										
Posting Date	Docum... Type	Document No.	G/L Account No.	Description	Department Code	Customergroup Code	Gen. Posting Type	Gen. Bus. Posting Group	Gen. Prod. Posting Group	Amount
→ 5/8/2021	:	A00008	50100	Direct Cost 1896-S-ASSM on 05/08/21						-21.56 G/L
5/8/2021		A00008	50100	Direct Cost 1896-S-ASSM on 05/08/21						-795.09 G/L
5/8/2021		A00008	50100	Indirect Cost 1896-S-ASSM on 05/08/21						3.75 G/L
5/8/2021		A00008	50100	Direct Cost 1896-S-ASSM on 05/08/21						37.50 G/L
5/8/2021		A00008	50100	Direct Cost 1896-S-ASSM on 05/08/21						30.40 G/L
5/8/2021		A00008	50100	Direct Cost 1896-S-ASSM on 05/08/21						5.00 G/L
5/8/2021		A00008	50100	Direct Cost 1896-S-ASSM on 05/08/21						240.00 G/L
5/8/2021		A00008	50100	Direct Cost 1896-S-ASSM on 05/08/21						500.00 G/L
5/8/2021		A00008	10700	Direct Cost 1896-S-ASSM on 05/08/21						21.56 G/L
5/8/2021		A00008	10700	Direct Cost 1896-S-ASSM on 05/08/21						795.09 G/L
5/8/2021		A00008	10700	Indirect Cost 1896-S-ASSM on 05/08/21						-3.75 G/L
5/8/2021		A00008	10700	Direct Cost 1896-S-ASSM on 05/08/21						-37.50 G/L
5/8/2021		A00008	10700	Direct Cost 1896-S-ASSM on 05/08/21						-30.40 G/L
5/8/2021		A00008	10700	Direct Cost 1896-S-ASSM on 05/08/21						-5.00 G/L
5/8/2021		A00008	10700	Direct Cost 1896-S-ASSM on 05/08/21						-240.00 G/L
5/8/2021		A00008	10700	Direct Cost 1896-S-ASSM on 05/08/21						-500.00 G/L

Consumption of Components

For the consumption, the inventory account is credited according to the cost of the component consumed, and the debit side of this transaction goes to the inventory adjustment account in the P&L. The inventory account is defined in the inventory posting setup and the inventory adjustment account is defined in the general posting setup (based on the posting groups of the component). Kind of the same as a negative inventory adjustment.

Account Type	I/B	Setup Area	Debit	Credit
Inventory	B	Inv Posting Setup		X
Inventory Adjustment	I	Gen Posting Setup	X	

Inventory account used is a combination of the Inventory Posting Group and Location (inventory location)

Item Card

7000-NA · Table Top (no assembly)

Process Item Prices & Discounts Request Approval Actions Related Reports Automate Fewer options

Sales Prices Sales Discounts Purchase Prices Purchase Discounts

Costs & Posting

Cost Details

Costing Method: FIFO

Standard Cost: 0.00

Unit Cost: 500.00

Net Invoiced Qty: 98

Posting Details

Gen. Prod. Posting Group: NO TAX

Tax Group Code: NONTAXABLE

Inventory Posting Group: RESALE

Default Deferral Template:

Inventory Posting Setup

Inventory Posting Setup

Search + New Edit List Delete Edit View Suggest Accounts

Location Code	Inv. Posting Group Code	Description	View All Acc... on	Inventory Account	Inventory Account (Interim)	WIP Account
→	:	RESALE	<input type="checkbox"/>	10700	20701	
01A	RESALE	EXAMPLE	<input type="checkbox"/>	10700	20701	
01B	RESALE		<input type="checkbox"/>	10700	20701	
01C	RESALE		<input type="checkbox"/>	10700	20701	
01D	RESALE		<input type="checkbox"/>	10700	20701	
02	RESALE		<input type="checkbox"/>	10700	20701	
03	RESALE		<input type="checkbox"/>	10700	20701	

Inventory Adjustment Account (General Posting Setup)

Gen. Bus. Posting Group ↑	Gen. Prod. Posting Group ↑	Purch. Pmt. Tot. Credit Acc.	Purch. Prepayments Account	COGS Account	COGS Account (Interim)	Inventory Adjmt. Account	Inv. Accr. Acc. (Interim)
→	NO TAX			50100	10701	50100	50100
	RETAIL			50100	10701	50100	50100
	SERVICES			50100	10701	50100	50100
DOMESTIC	NO TAX			50100	10701	50100	50100
DOMESTIC	RETAIL			50100	10701	50100	50100

Resource Costs

For the resource cost, BC credits the cost of capacity account and debits the inventory adjustment account for the direct cost and for the indirect cost it credits the overhead applied account and debits the inventory adjustment account (all P&L accounts, no WIP in the balance sheet to increase as it would have been with a production order). All the accounts come from the general posting setup of the posting group defined on the resource card (direct cost applied account, overhead applied account, and inventory adjustment account). The amounts are the costs on the resource card multiplied with the quantity posted.

Direct Costs

Account Type	I/B	Setup Area	Debit	Credit
Direct Cost Applied Account	I	Gen Posting Setup		X
Inventory Adjustment	I	Gen Posting Setup	X	

Gen. Bus. Posting Group ↑	Gen. Prod. Posting Group ↑	Purch. Prepayments Account	COGS Account	COGS Account (Interim)	Inventory Adjmt. Account	Inv. Accrual Acc. (Interim)	Direct Cost Applied Account	Overhead Applied Account
→	NO TAX		50100	10701	50100	50100	10700	10700
	RETAIL		50100	10701	50100	50100	10700	10700
	SERVICES		50100	10701	50100	50100	10700	10700
DOMESTIC	NO TAX		50100	10701	50100	50100	10700	10700
DOMESTIC	RETAIL		50100	10701	50100	50100	10700	10700
DOMESTIC	SERVICES		50200	10701	50100	50100	10700	10700
DOMESTIC	TOOL TRUCK		*					

Indirect Costs

Account Type	I/B	Setup Area	Debit	Credit
Overhead Applied Account	I	Gen Posting Setup		X
Inventory Adjustment	I	Gen Posting Setup	X	

Gen. Bus. Posting Group ↑	Gen. Prod. Posting Group ↑	Purch. Prepayments Account	COGS Account	COGS Account (Interim)	Inventory Adjmt. Account	Inv. Accrual Acc. (Interim)	Direct Cost Applied Account	Overhead Applied Account
→	NO TAX		50100	10701	50100	50100	10700	10700
	RETAIL		50100	10701	50100	50100	10700	10700
	SERVICES		50100	10701	50100	50100	10700	10700
DOMESTIC	NO TAX		50100	10701	50100	50100	10700	10700
DOMESTIC	RETAIL		50100	10701	50100	50100	10700	10700
DOMESTIC	SERVICES		50200	10701	50100	50100	10700	10700
DOMESTIC	TOOL TRUCK		*					

Output Assemblies

For the output, BC debits the inventory account in the balance sheet and credit the inventory adjustment account in the P&L. The amount is the sum of the posted inventory and resource costs. If the item is a standard cost item (like in our case) you might also get some variances posted into the P&L (if there is a difference between the standard and actual costs). The variance accounts come from the inventory posting setup for the posting group defined on the assembly item and the balancing account for the variances is the inventory account (which makes the inventory value in the balance sheet match the standard cost).








Keep in mind that if the finished good has a different Inventory Posting and General Product Posting Group then those accounts are used for the below transaction. The inventory adjustment account for the finished goods General Product Posting Group should be the same as components.

Account Type	I/B	Setup Area	Debit	Credit
Inventory	B	Inv Posting Setup	X	
Inventory Adjustment	I	Gen Posting Setup		X

That's it related to what general ledger accounts that are used during an assembly order posting.

Dimensions on Assembly Orders

Microsoft has given us the option to choose through a setup called 'copy components dimensions from' in the assembly setup table. It is either from the items/resources or from the header of the assembly order.

✓ Saved

Assembly Setup

General

Stockout Warning ☒

Default Location for Orders 01A ▼

Copy Component Dimensions from Item/Resource Card ▼

Copy Comments when Posting ☒

Numbering

Assembly Order Nos. A-ORD ▼

Blanket Assembly Order Nos. A-BLK ▼

Assembly Quote Nos. A-QUO ▼

Posted Assembly Order Nos. A-ORD+ ▼

Warehouse >
