



Coffee Break & Learn: Tip of the Week – May 25, 2017

Every Batch & Serial Number Has Its Cost

Available starting SAP Business One 9.1

Background

Many firms and industries require a precise method of tracking profitability of sold items. Some businesses, such as food manufacturers, may want to track the cost of production for each batch, as the cost of factors (such as labor and ingredients) may fluctuate and vary. Others, such as resellers of electronics, may need to track the profitability of each specific item, particularly if they are high cost items, and thus need to record the link the outbound transaction with the cost of that item's actual inbound transaction.

The standard cost, moving average, and FIFO methods are limited in the ability to associate the actual cost of batches or items with the outbound transactions. When using the batch or serial valuation method, the cost used for an item in an outbound transaction is the actual inbound cost of that specific serial number or batch. This way, the profitability can be calculated for a specific serial number or batch.

Requirements and Options

Requirements for using batch and serial number valuation method:

1. Use perpetual inventory
2. Manage item by batch or serial number
3. Batch or serial number is managed on every transaction

Options:

1. Company level or item level
2. Multiple receipts for same batch
 - When multiple receipts are enabled, the cost of the batch is the total value of all batch receipts divided by total quantity received in the batch

Illustration: Batch Valuation Method

OEC Computers has started producing and distributing cakes to diversify its products. OEC pound cakes are batch managed and use the Serial/Batch valuation method:

Item Master Data

Item No. Manual P00001 Inventory Item
 Text Pound Cake Sales Item
 Foreign Name Purchase Item
 Item Type Items
 Item Group Cake
 UoM Group Manual Bar Code
 Price List Base Price Unit Price Primary Curren 40.00 \$

General Purchasing Data Sales Data **Inventory Data** Planning Data Production Data Properties Remarks Attachments

Tax Liabile
 Do Not Apply Discount Groups
 Manufacturer OEC
 Additional Identifier
 Shipping Type Fedex EM

Serial and Batch Numbers
 Manage Item by Batches
 Management Method On Every Transaction

Block Multiple Receipts for Same Batch
 Issue Primarily By Serial and Batch Numbers

Item Master Data

Item No. Manual P00001 Inventory Item
 Text Pound Cake Sales Item
 Foreign Name Purchase Item
 Item Type Items
 Item Group Cake
 UoM Group Manual Bar Code
 Price List Base Price Unit Price Primary Curren 40.00 \$

General Purchasing Data Sales Data **Inventory Data** Planning Data Production Data Properties Remarks Attachments

Set Inv. Method By Warehouse Manage Inventory by Warehouse
 UoM Name
 Weight

Inventory Level
 Required (Purchasing UoM)
 Minimum
 Maximum

Valuation Method Serial/Batch

#	Whse Code	Whse Name	Locked	In Stock	Committed	Ordered	Available	Mi...
1	01	General Warehouse	<input type="checkbox"/>					
2	02	West Cost Warehouse	<input type="checkbox"/>					
3	03	Dropship Warehouse	<input type="checkbox"/>					
4	04	Consignment Warehouse	<input type="checkbox"/>					
5	05	Reserve Warehouse	<input type="checkbox"/>					

OEC has processed four inbound transactions for the pound cake using four different batches, each with its own inbound cost:

Inventory Revaluation

Number: 1 Series: Primary

Revaluation Type: Price Change

#	Item No.	Item Description	Whse	Current Cost	New Cost	Unit of Measure	In Stock	G/L Increase Acct
1	P00001	Pound Cake	01				40.000	52300000-01-001-01
2								52300000-01-001-01

Serial/Batch Number Filter

Filtered By: Display Issued Serials/Batches

Filter:

Find:

Admission Date: From To Set value for selection:

Expiry Date: From To

Serials/Batches

S/B No.	Admission Date	Expiration Date	Current Cost
00001	05/19/2017		10.00 \$
00002	05/19/2017		11.00 \$
00003	05/19/2017		12.00 \$
00004	05/19/2017		13.00 \$

When OEC creates a delivery document for a pound cake, the COGS used will be specific to the cost of the batch chosen in the delivery document:

When Batch 00001 is selected:

Batch Number Selection

Rows from Documents

#	Item No.	Item Description	Whse C...	Quantity	Total Needed	Total Selec...	Total Batc...	Direction
1	P00001	Pound Cake	01	1		1	1	Out

Available Batches

Find:

#	Batch	Availabl...	Selecte...	Allocate...
1	00001	9	1,000	
2	00002	10		
3	00003	10		
4	00004	10		
		39		

Selected Batches

#	Batch	Selected Qty
1	00001	1

Delivery

Customer → C20000
 Name Maxi-Teq
 Contact Person → Max Teq
 Customer Ref. No.
 BP Currency \$

Branch OEC Computers

Contents Logistics Accounting Attachments

Item/Service Type Item

#	Item No.	Item Description	Quantity	Unit Price	Discount %	Tax Code	Total (LC)	Item Cost	JoM Code
1	→ P00001	Pound Cake	1	60.00 \$	0.000	→ Exempt	60.00 \$	10.00 \$	Manual
2					0.000				

When Batch 00004 is selected:

Batch Number Selection

Rows from Documents

#	Item No.	Item Description	Whse C...	Quantity	Total Needed	Total Selec...	Total Batc...	Direction
1	→ P00001	→ Pound Cake	→ 01	1		1	1	Out

Available Batches

Find

#	Batch	Availabl...	Selecte...	Allocate...
1	→ 00001	10		
2	→ 00002	10		
3	→ 00003	10		
4	→ 00004	9	1.000	
		39		

Selected Batches

#	Batch	Selected Qty
1	→ 00004	1

Delivery

Branch OEC Computers

Contents Logistics Accounting Attachments

Item/Service Type Item

#	Item No.	Item Description	Quantity	Unit Price	Discount %	Tax Code	Total (LC)	Item Cost	JoM Code
1	→ P00001	Pound Cake	1	60.00 \$	0.000	→ Exempt	60.00 \$	13.00 \$	Manual
2					0.000				

The same mechanism applies to serial number valuation.

Summary

The Serial/Batch valuation method tracks the cost of items at the serial number or batch level. This allows users to see a serial or batch specific cost in outbound transactions. In turn, this allows for the calculation of profitability for specific items or batches. In order to use this, the item in question must be serial number or batch managed on every transaction. Users can use the Batches and Serial Inventory Audit Report to view costing details by serial numbers or batches. More information regarding the Batch and Serial valuation method can be found [here](#).

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