

Using Actual Cost Adjustments in OPM Costing

An Oracle White Paper
March 2006

Using Actual Cost Adjustments in OPM Costing

Actual Cost Adjustments can be used in OPM Costing to either directly affect the cost of items or to simulate the effect of a transaction that happens outside the purview of the Actual Costing process. This white paper talks about the effect of the various cost adjustments on the cost of the items and recommended scenarios for each of adjustment types.

INTRODUCTION

Actual Cost Adjustment functionality gives the users an ability to change the cost of an item – Product or Raw materials. This functionality can be used to simulate the effect of a cost change or to introduce the effect of a transaction that happens outside the purview of the Actual Costing process. Typically, customers use this functionality to :

- Adjust cost to include freight and other charges recorded on a separate freight/charge invoice
- To handle price difference in invoices that are received in a different period than the receipt
- To adjust cost to include vendor rebates

Adjustment Types

Till recently, customers can create an adjustment by either providing an adjustment quantity and a cost or just a value that needs to be included in the actual cost process. With the recent enhancements to the Actual Cost Adjustments, a new type of adjustment has been created that can be used to affect the unit cost of the item directly. The existing adjustment types have also been renamed.

The adjustment types available are:

- Average Cost Adjustment
- Value Adjustment
- Unit Cost Adjustment

Average Cost Adjustment

This type of adjustment requires the user to enter an adjustment quantity and a cost. The effect of this adjustment is to simulate a transaction that has happened outside the scope of OPM actual costing engine.

For example, if a customer uses a 3rd party system which has transactions that need to be included in the cost calculations, the customer can replicate the event with

this type of adjustment. The actual costing logic would consider these transactions similar to a purchase receipt.

Value Adjustment

This type of adjustment requires the user to enter a total value of the adjustment that needs to be passed to the entire quantity. The effect of this type of adjustment is to add a specific value to the inventory account that needs to be spread to the on-hand quantity.

For example, if the effect of vendor rebates need to be applied to the entire on-hand quantity, this type of adjustment can be used.

Unit Cost Adjustments

This adjustment type requires the user to enter a fixed cost that they would like to apply to the existing unit cost. The effect of this adjustment is to add a specific value to the unit cost of the item.

For example, if the user wants to see the effect of changing the unit cost of the item by a fixed number for simulation purposes, this adjustment can be used.

Option to create accounting entries

Depending on the reasons for which these adjustments are created, the user can indicate if accounting entries are to be created or not. This option can be set when defining an actual cost adjustment reason and changed at the time of creating the adjustment.

API to create Actual Cost Adjustments

The Actual Cost Adjustment API lets you adjust the final calculated actual cost of a raw material or product based on quantity, value, or unit cost. Actual costs are recalculated based on the adjustments that you enter for the specified item, warehouse, cost method, cost calendar, and cost period.

The API lets you perform the following actual cost adjustments:

- Create
- Update
- Delete
- Get

Example

Actual Cost Adjustment Types:

- Average Cost Adjustment
- Value Adjustment
- Unit Cost Adjustment.

Let us take the following example to describe the types of adjustments and its effect on the cost of the item and Inventory account balances.

For an item FG100 under warehouse PR1, the following are the balances and transactions that have taken place.

	Quantity	Cost
Opening Balance	100 LB	\$7.00
Receipts	100 LB	\$9.00

$$\begin{aligned}\text{Actual Cost} &= \frac{(\text{Prior Qty} * \text{Prior Cost}) + \sum (\text{Receipt Qty} * \text{PO Price})}{(\text{Prior qty} + \sum \text{Receipt Qty})} \\ &= \frac{((100 * 7.00) + (100 * 9.00))}{(100 + 100)} \\ &= \$ 8.00\end{aligned}$$

Let's now create the following adjustments.

Adjustment Type	Quantity	Cost / Value
Value Adjustment	-	\$300.00
Average Adjustment	100.00 LB	\$11.00
Unit Cost Adjustment	-	\$2.00

Let us look at the effect of each of these adjustments on Actual cost and Sub-Ledger entries:

Assumption: Purchase Order Receipts is booked at the PO price

Value Adjustments

Actual Costing Logic

PMAC cost =

$$\frac{(\text{Prior Qty} * \text{Prior Cost}) + \sum (\text{Receipt Qty} * \text{PO Price}) + \text{Value Adjustments}}{(\text{Prior qty} + \sum \text{Receipt Qty})}$$

$$= \frac{((100 * 7.00) + (100 * 9.00)) + 300.00}{}$$

The example in the white paper uses PMAC as the costing method. The effect of the adjustments will be the same for other actual costing methods such as PWAC.

$$= \quad \quad \quad (100 + 100)$$

$$= \quad \quad \quad \$ 9.50$$

Sub-Ledger Entries

Account Title	Dr	Cr
Inventory Account (INV)	Adjustment Value	
Actual Cost Adjustments (ACA)		Adjustment Value

The actual postings as per the above example would be:

Account Title	Dr	Cr
Inventory Account (INV)	\$ 300.00	
Actual Cost Adjustments (ACA)		\$ 300.00

Inventory Valuations Comparison

Inventory valuations and the A/C balances in the INV account in GL can be compared to verify the effect of the Sub-Ledger entries.

$$\begin{aligned} \text{Inventory Valuation} &= \text{Actual cost} * \text{On Hand Quantity} \\ &= 9.50 * 200 \end{aligned}$$

$$\text{Inventory Valuation} = \quad \quad \quad \mathbf{\$ 1900.00}$$

INV Account balances

$$\text{Balances from prior period} = \quad \quad \quad \$ 700.00 \text{ (100 * 7.00)}$$

$$\text{Receipt} = \quad \quad \quad \$ 900.00 \text{ (100 * 9.00)}$$

$$\text{Value Adjustment} = \quad \quad \quad \$ 300.00$$

$$\text{Total} = \quad \quad \quad \mathbf{\$ 1900.00}$$

Average Cost Adjustments

Lets look at the effect of adding an Average Cost Adjustment of 100 LB @ \$11.00 to the above scenario

Actual Costing Logic

PMAC cost =

$(\text{Prior Qty} * \text{Prior Cost}) + \sum (\text{Receipt Qty} * \text{PO Price}) + \text{Value Adjustments} + \text{Average Cost Adjustments}$

$$\begin{aligned}
 & \frac{(\text{Prior qty} + \sum \text{Receipt Qty} + \sum \text{Average Cost Adjustment Qty})}{= \frac{((100 * 7.00) + (100 * 9.00)) + 300.00 + (100 * 11.00)}{(100 + 100 + 100)}} \\
 & = \$ 10.00
 \end{aligned}$$

Sub-Ledger Entries

Since the adjustment quantity does not affect the physical Inventory balance, the accounting entry that this adjustment creates uses only *the difference between the cost specified in the adjustment and the calculated PMAC cost.*

Account Title	Dr	Cr
Inventory Account (INV)	Adjustment quantity * (Adjustment Cost – Item Cost)	
Actual Cost Adjustments (ACA)		Adjustment quantity * (Adjustment Cost – Item Cost)

The actual postings as per the above example would be:

Account Title	Dr	Cr
Inventory Account (INV)	100 * (11.00 – 10.00) = \$ 100.00	
Actual Cost Adjustments (ACA)		100 * (11.00 – 10.00) = \$ 100.00

Inventory Valuations Comparison

$$\begin{aligned}
 \text{Inventory Valuation} &= \text{Actual cost} * \text{On Hand Quantity} \\
 &= 10.00 * 200 \\
 \text{Inventory Valuation} &= \mathbf{\$ 2000.00}
 \end{aligned}$$

INV Account balances

$$\begin{aligned}
 \text{Balances from prior period} &= \$ 700.00 (100 * 7.00) \\
 \text{Receipt} &= \$ 900.00 (100 * 9.00) \\
 \text{Value Adjustment} &= \$ 300.00 \\
 \text{Average Cost Adjustment} &= \$ 100.00 (100 * (11.00 – 10.00))
 \end{aligned}$$

$$\text{Total} = \$ 2000.00$$

Unit Cost Adjustments

Let us look at the effect of applying a Unit cost Adjustment of \$2.00 to this scenario.

Actual Costing Logic

The Unit Cost Adjustments are applied after the actual cost calculations are completed as before. Hence, it's a two-stage calculation of the actual unit cost of the item.

PMAC Cost =

$$(\text{Prior Qty} * \text{Prior Cost}) + \sum (\text{Receipt Qty} * \text{PO Price}) + \text{Value Adjustments} + \text{Average Cost Adjustments}$$

$$\frac{(\text{Prior qty} + \sum \text{Receipt Qty} + \sum \text{Average Cost Adjustment Qty})}{(100 * 7.00) + (100 * 9.00) + 300.00 + (100 * 11.00)}$$

$$= \frac{((100 * 7.00) + (100 * 9.00)) + 300.00 + (100 * 11.00)}{(100 + 100 + 100)}$$

$$= \frac{((100 * 7.00) + (100 * 9.00)) + 300.00 + (100 * 11.00)}{(100 + 100 + 100)}$$

$$= \$ 10.00 \text{ (Without Unit Cost Adjustment)}$$

Unit Cost Adjustment is considered only after the calculation of the actual cost in the Actual costing logic. So applying a Unit Cost Adjustment of \$ 2.00, the new PMAC Cost will be as follows:

$$= \$ 10.00 + \$ 2.00 \text{ (Unit Cost Adjustment)}$$

$$= \$ 12.00$$

Sub-Ledger Entries

Since the Unit Cost Adjustment is essentially an addition to the Item Cost, the sub ledger considers *entire quantity considered by the Actual Cost calculation* and not just the on-hand quantity for the accounting postings.

Account Title	Dr	Cr
Inventory Account (INV)	Actual cost calculation Qty * Unit Cost Adjustment	
Actual Cost Adjustments (ACA)		Actual cost calculation Qty * Unit Cost Adjustment

The actual postings as per the above example would be:

Account Title	Dr	Cr
Inventory Account (INV)	300 * 2.00 = \$ 600.00	
Actual Cost Adjustments (ACA)		300 * 2.00 = \$ 600.00

Inventory Valuations Comparison

<u>Inventory Valuation</u>	=	Actual cost * On Hand Quantity
	=	12.00 * 200
Inventory Valuation	=	\$ 2400.00

INV Account balances

Balances from prior period	=	\$ 700.00 (100 * 7.00)
Receipt	=	\$ 900.00 (100 * 9.00)
Value Adjustment	=	\$ 300.00
Average Cost Adjustment	=	- \$ 100.00 (100 * (11.00 – 12.00))
Unit Cost Adjustment	=	\$ 600.00 (300 * 2.00)
Total	=	\$ 2400.00

CONCLUSION

The Actual Cost Adjustments is a very versatile functionality available in OPM Costing and can be used to affect the cost of items for a variety of reasons. The white paper shows the various uses and the effect of such adjustments to the cost of the item and Inventory account balances.



White Paper Using Actual Cost Adjustments in OPM Costing
March 2006
Author: Srin Raghavan

Oracle Corporation
World Headquarters
500 Oracle Parkway
Redwood Shores, CA 94065
U.S.A.

Worldwide Inquiries:
Phone: +1.650.506.7000
Fax: +1.650.506.7200
oracle.com

Copyright © 2005, Oracle. All rights reserved.

This document is provided for information purposes only and the contents hereof are subject to change without notice.

This document is not warranted to be error-free, nor subject to any other warranties or conditions, whether expressed orally or implied in law, including implied warranties and conditions of merchantability or fitness for a particular purpose. We specifically disclaim any liability with respect to this document and no contractual obligations are formed either directly or indirectly by this document. This document may not be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without our prior written permission. Oracle, JD Edwards, and PeopleSoft, are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.