Average Costing Methodology

EPDS/FDS uses an Average Cost Method in the calculation of the inventory value and cost of goods sold. Cost is performed and maintained on an item by item basis (SKU). For each item, the system maintains an average unit cost which is calculated and stored to a precision of 5 decimal places.

When goods are received from the vendor, the new inventory value is calculated as follows:

1. Compute the original Value of the inventory prior to the receipt:
2. Quantity On Hand multiplied by Average Unit Cost
3. Compute the Value of the items in the receipt:
4. Quantity in receipt multiplied by the Unit Price of the item
5. Compute the new Total Inventory Value
6. Add the original Value of Inventory prior to the receipt to the Value of the items in the receipt.
7. Compute the new Quantity On Hand:
8. Add the original Quantity On Hand to the Quantity Received
9. Compute the new Average Unit Cost:
10. Divide the new Total Inventory Value by the new Quantity On Hand. The result of this computation is rounded to the 1/1000 of a penny.
11. Store the new Average Unit Cost for use in later computation of Cost of Goods Sold and future receipts.

For example:

Assume there are 100 pieces of item ABC in stock that have an average unit cost of $1.00. Then 60 pieces of item ABC is received. The cost for each piece is $1.10. The system would make the following computation:

- Compute the original Value of the inventory prior to the receipt:
- 100 pieces X $1.00 per piece = $100.00.

- Compute the Value of the items in the receipt:
- 60 pieces X $1.10 per piece = $66.00.

- Compute the new Total Inventory Value
- $100.00 plus $66.00 = $166.00

- Compute the new Quantity On Hand:
- 100 pieces plus 60 pieces = 160 pieces

- Compute the new Average Unit Cost:
- $166.00 divided by 160 pieces = $1.03750

When items are shipped, inventory is reduced based upon the Average Unit Cost and the number of pieces shipped.

Only specific programs within the system can affect inventory valuation and quantity:

- PO Receiving Process – Primary process for receiving inventory into the system.
- Inventory Transaction Processing – This program is used to make inventory adjustments as a result of discrepancies with actual inventory.
- Inventory Cost Adjustment – This program is used to make corrections to inventory and cost of goods sold in the event goods are received in or shipped at the wrong cost.
- Inventory Return To Vendor Process – This program is used to return goods to a vendor.
- Customer RMA Receiving – This program is used to process goods returned from a customer.
- Warehouse Transfer – This program is used to move inventory from one warehouse to another.
- Custom Invoicing – This program is used to Invoice customers and make the appropriate deductions from inventory.

The system provides strong control and end-to-end audit capability of all functions related to inventory. Posting of inventory to the inventory sub-ledger and general ledger are performed together in each program. The system marks each transaction with a Posting Register Id and Sequence Number to make it easy to track an entry from the general ledger back to the subsidiary module and from the subsidiary to the general ledger.