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| Exensys Software Solutions Ltd. |  | AA/B/CCDD V x.y   |
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## eXensys - Valuation Methodology



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## Introduction

Objective of this document is to furnish a conceptual analysis of valuation methodology in Inventory management. There are two valuation methodology being used in Inventory Management – FIFO & Weighted Average. FIFO accounting is a common method for recording the value of inventory .It is appropriate where there are many different batches of similar products. The method presumes that the next item to be shipped will be the oldest of that type in the warehouse. The weighted-average inventory costing method uses a weighted-average cost per inventory unit in assigning cost to units sold and to inventory.

## Overview

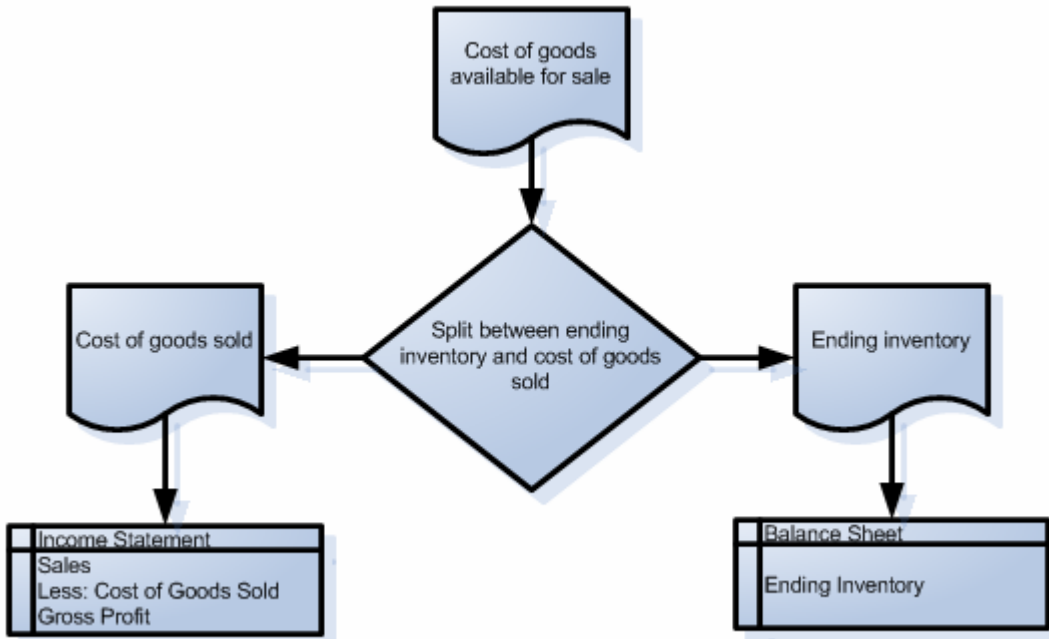
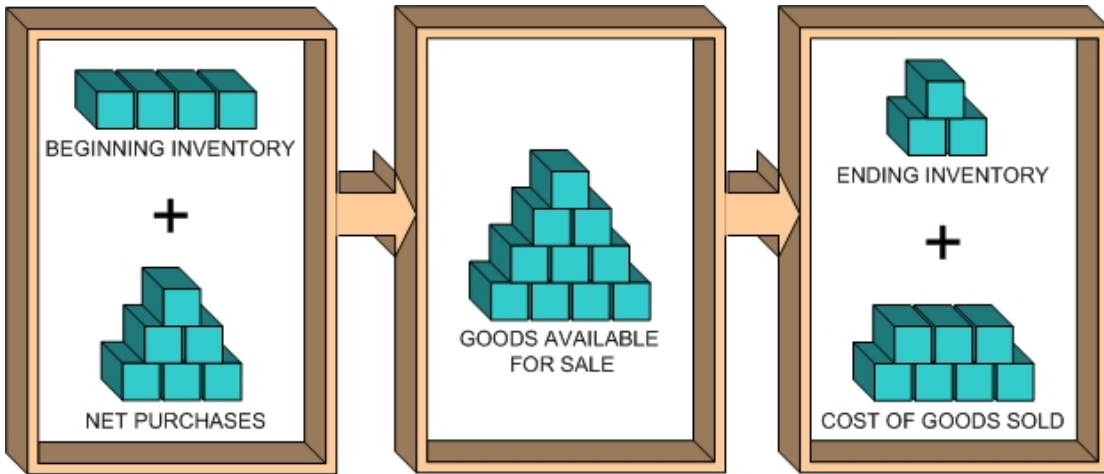
### Valuation Methodology

In the item master – Inventory data for a sub organization valuation methodology can be defined item specific. There are two valuation methodology :

- 1.FIFO
- 2.Moving Weighted Average

### Inventory Costing Method

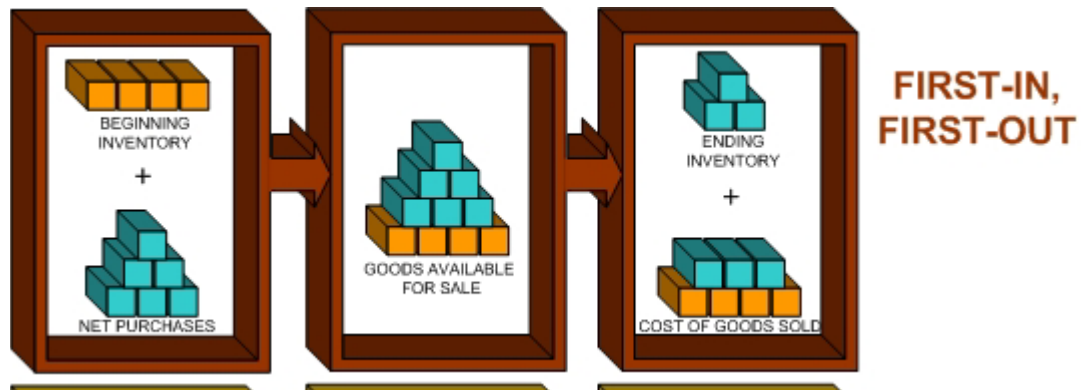
Stock values often move significantly on information about a company's earnings. . The reason is that inventory measurement bears directly on the determination of income. The goods available for sale are "allocated" to ending inventory and cost of goods sold. In the graphic, the units of inventory appear as physical units. But, in a company's accounting records, this flow must be translated into units of money. After all, the balance sheet expresses inventory in money, not units. And, cost of goods sold on the income statement is also expressed in money:



### 1. FIFO Valuation Method:

It is a method that enables you to value the stocks of a material as realistically as possible. FIFO (first in, first out) stands for the assumption that the first stocks of a material to be received are the first to be consumed. The value of the stock is therefore calculated based on the last stocks received. The **first-in, first-out inventory costing method** is based on the assumption that the first items received were the first items sold. In other words, items in the beginning inventory or the

oldest items are assumed to be sold first. The most recent inventory purchased is assumed to remain in ending inventory. For many businesses, this is the actual flow of goods. FIFO will produce identical results under both the perpetual and periodic inventory systems.



■ **FIFO (First in, First out)**

- The cost of the **oldest** inventory items are charged to COGS when goods are sold
- The cost of the **newest** inventory items remain in ending inventory

Example:

|                         |       |
|-------------------------|-------|
| <b>Sub organization</b> | SO1   |
| <b>Item code</b>        | Cable |
| <b>Base UOM</b>         | No.   |
| <b>Valuation Method</b> | FIFO  |

| Valuation Methodology - First In First Out |                        |                 |                   |              |             |
|--|------------------------|-----------------|-------------------|--------------|-------------|
| Date                                       | Transaction            | Issued Quantity | Received Quantity | Unit Rate    | Stock Value |
| 01.01.08                                   | Stock opening balance  | 0.000           | 50.000            | 95.00        | 4750.00     |
| 10.01.08                                   | GRN                    | 0.000           | 100.000           | 45.00        | 4500.00     |
| 20.01.08                                   | Consignment In         | 0.000           | 25.000            | 38.00        | 950.00      |
| 20.01.08                                   | Sub contracting issues | 25.000          | 25.000            | <b>95.00</b> | 0.00        |

The first items received were the first items sold that is the items will be valued at the rate of 95.

## 2. Weighted Average Method

Under this method, the moving average is determined each time there is a purchase by dividing the total cost of inventory at that time by the total units available at that time. This method is based on the assumption that the average cost should change each time there is a new purchase.. A weighted-average cost of goods available for sale is recalculated at the time of each purchase. Notice that the most current average cost is used to calculate the cost of each sale. Weighted-average will produce different results under a perpetual than under a periodic inventory system.



- For the Periodic inventory system, one weighted average cost per unit is applied at the end of the period to determine COGS and Ending Inventory.
- For the Perpetual inventory system, a new weighted average unit cost must be calculated after each purchase to determine COGS and the current balance in inventory.

$$\text{Weighted-average cost (WAC) per unit} = \frac{\text{Beginning inventory cost} + \text{purchase costs}}{\text{Beginning inventory units} + \text{purchase units}}$$

Ending Inventory

Ending Inv. = Units in Ending Inv. x WAC per Unit

Cost of Goods Sold

COGS = Units Sold x WAC per Unit

|                         |                  |
|-------------------------|------------------|
| <b>Sub organization</b> | SO2              |
| <b>Item code</b>        | Cable            |
| <b>Base UOM</b>         | No.              |
| <b>Valuation Method</b> | Weighted Average |

| Valuation Methodology - Weighted Average |                        |                |                 |                   |              |             |
|--|------------------------|----------------|-----------------|-------------------|--------------|-------------|
| Date                                     | Transaction            | Double Posting | Issued Quantity | Received Quantity | Unit Rate    | Stock Value |
| 01.01.08                                 | Stock opening balance  | No             | 0.000           | 50.000            | 95.00        | 4750.00     |
| 10.01.08                                 | GRN                    | No             | 0.000           | 100.000           | 45.00        | 4500.00     |
| 20.01.08                                 | Consignment In         | No             | 0.000           | 25.000            | 38.00        | 950.00      |
| 20.01.08                                 | Sub contracting issues | Yes            | <b>25.000</b>   | <b>25.000</b>     | <b>58.29</b> | 0.00        |

**Business Performance Sustained**

### Benefits

- Valuation of items sub organization specific.
- Accurate updation of Stock Values
- Flow of costs tends to be consistent with usual physical flow of goods.
- Inventory value approximates current cost.
- Not Subject to manipulation

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## Conclusion

- eXensys Inventory value is derived automatic and on-line based on valuation method selected viz. Weighted Average /FIFO.
- eXensys cost of Inventory can be based upon the cost of material bought earliest in the period or can be based upon the average cost of all units currently in stock at the time of reporting .

