

Costing methods in MS Dynamics NAV

(Inventory Costing-basics)

Ing.J.Skorkovský,CSc.

MASARYK UNIVERSITY BRNO, Czech Republic

Faculty of economics and business administration

Department of corporate economy

Inventory Costing overview

Why inventory accounting?



Allocate item cost to the period in which the item is sold

Inventory Equation

$$\text{Ending Inventory} = \text{Beginning Inventory} + \text{Net Purchases} - \text{Cost of Goods Sold}$$
A diagram of the Inventory Equation using colored boxes to represent different components. The equation is:
$$\text{Ending Inventory} = \text{Beginning Inventory} + \text{Net Purchases} - \text{Cost of Goods Sold}$$

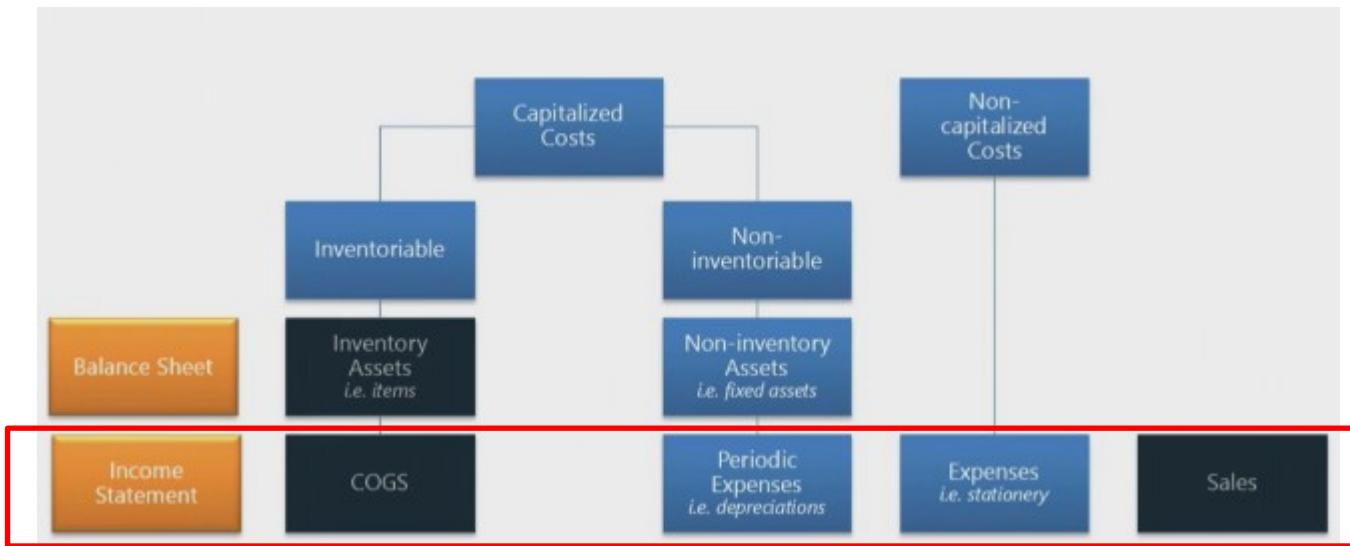
Known

Known

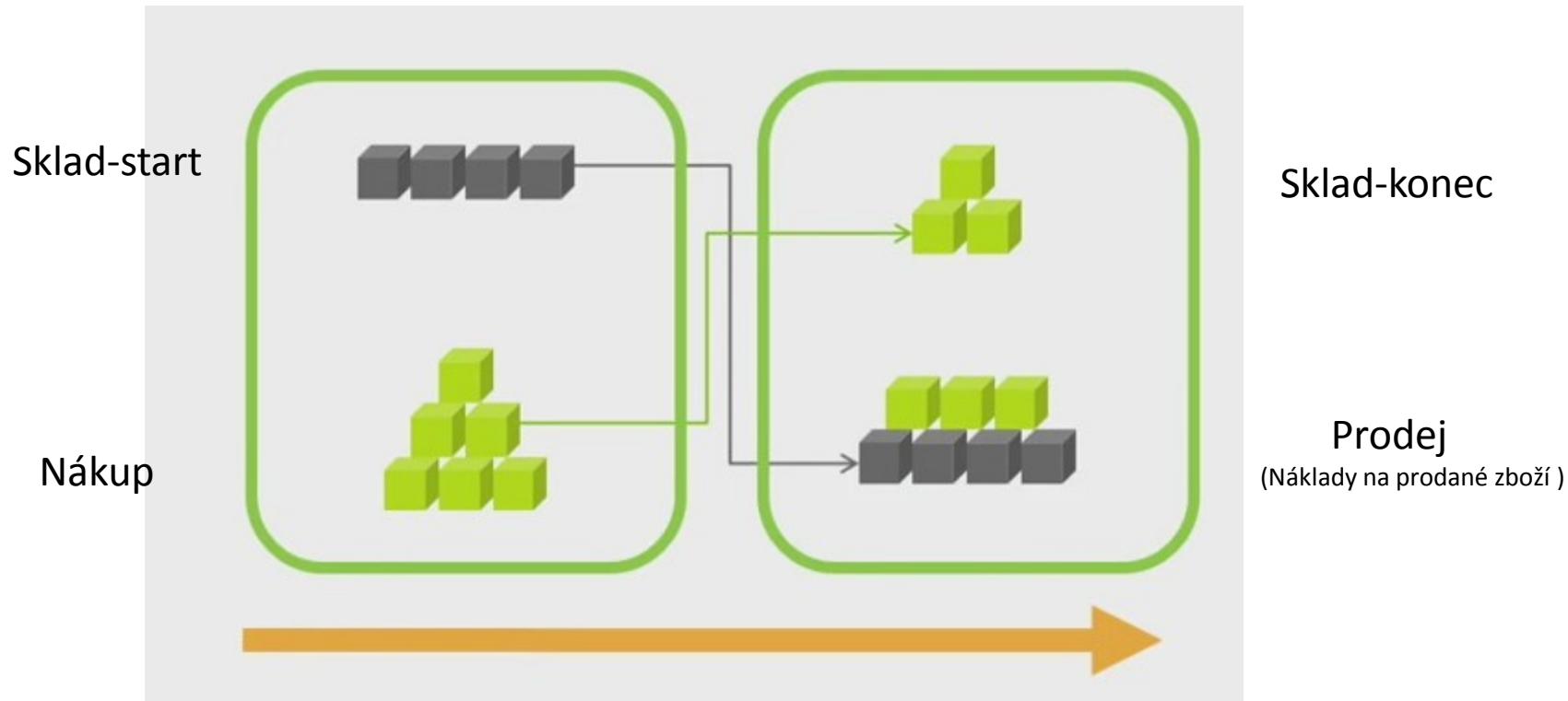
Recorded

Solved for - vypočítáváno

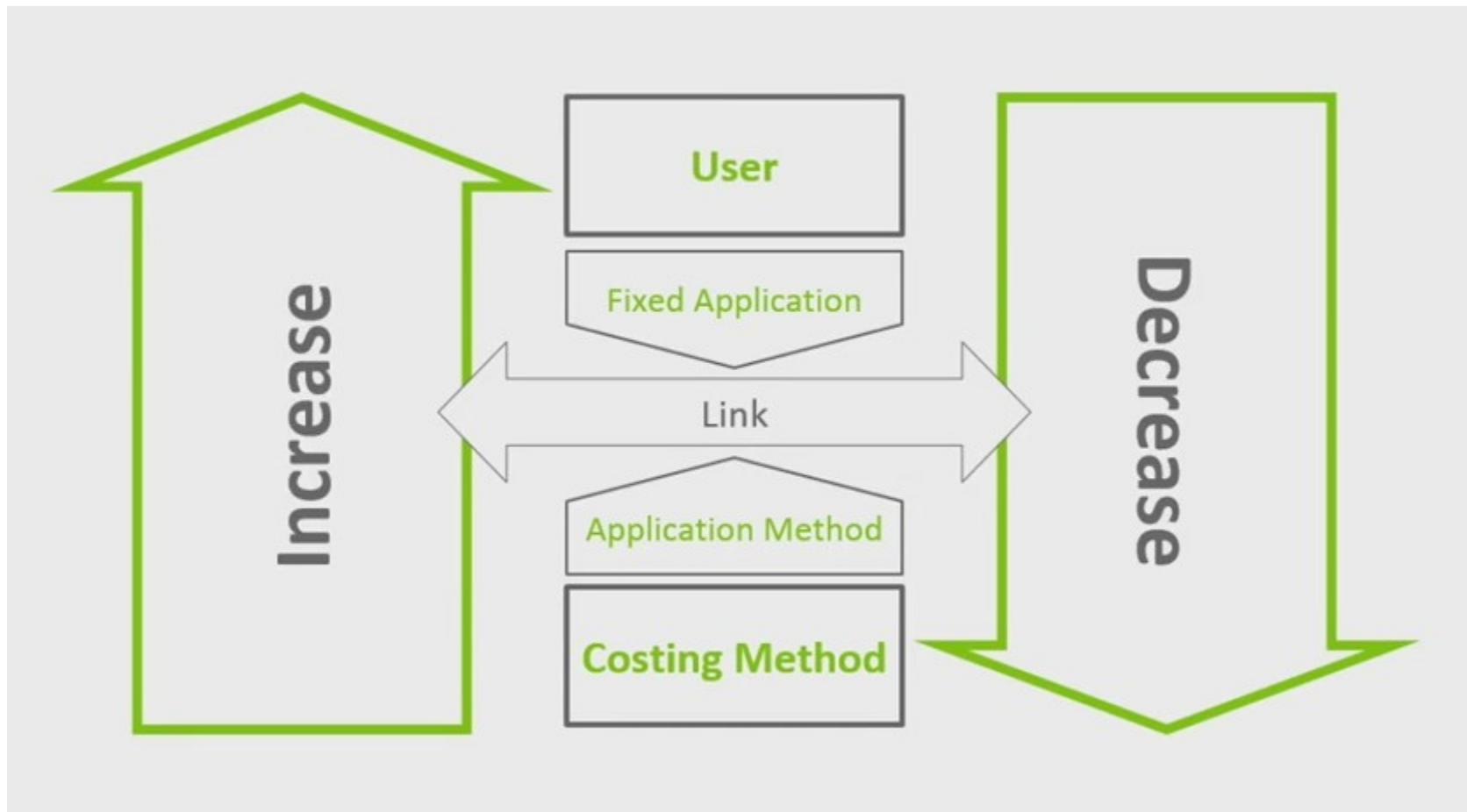
Inventory costing overview



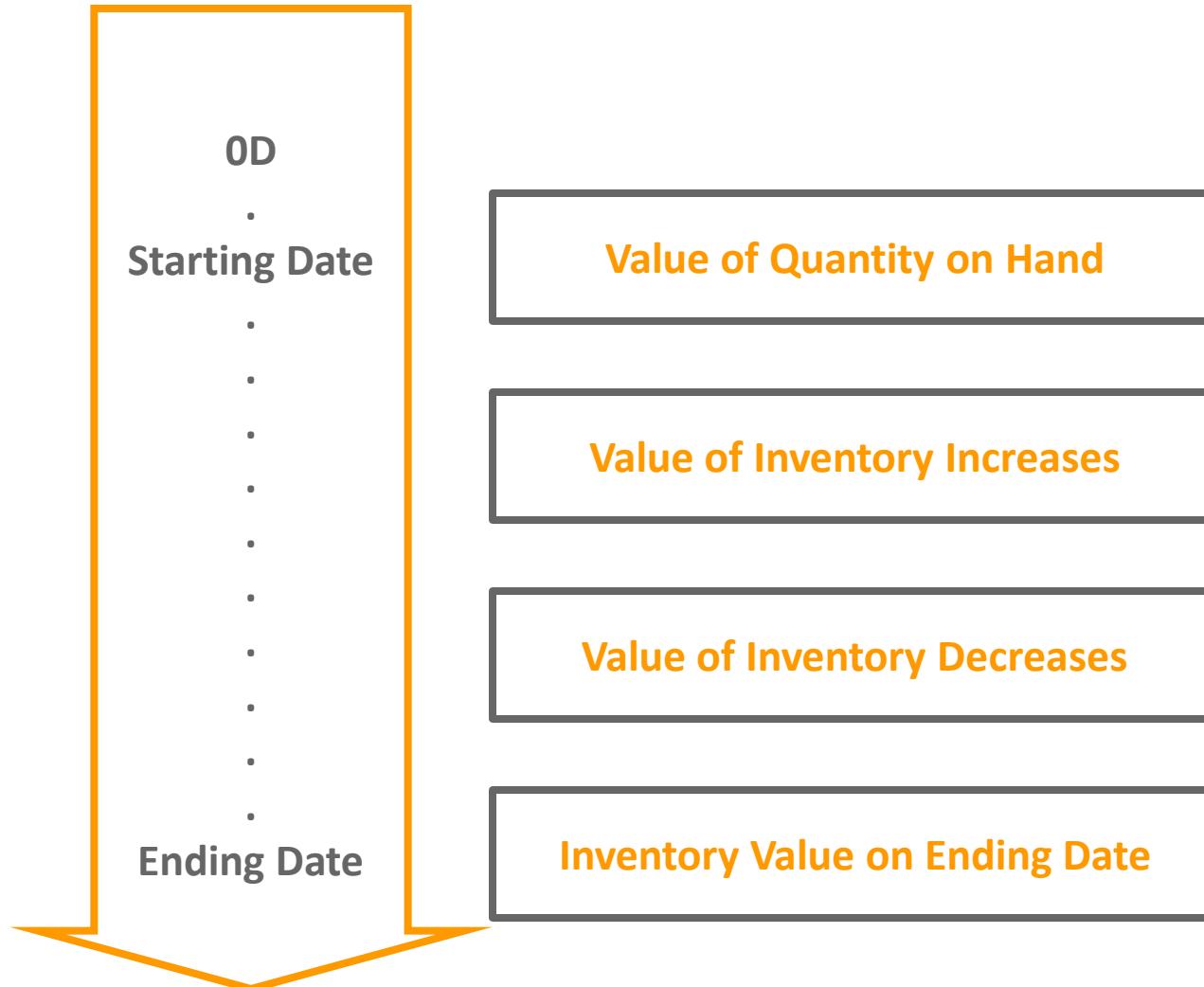
Costing methods (FIFO)



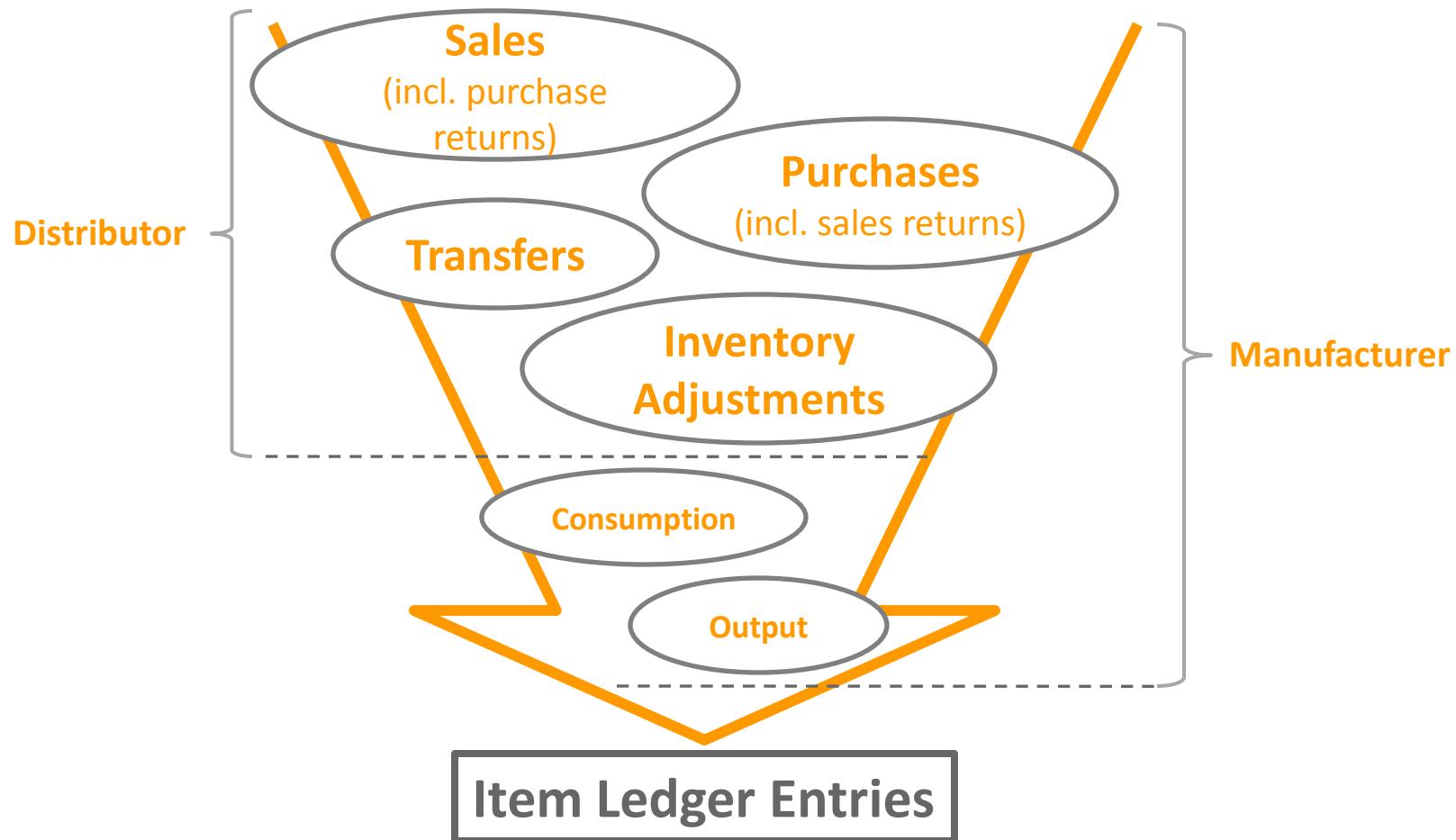
Cost flow assumption



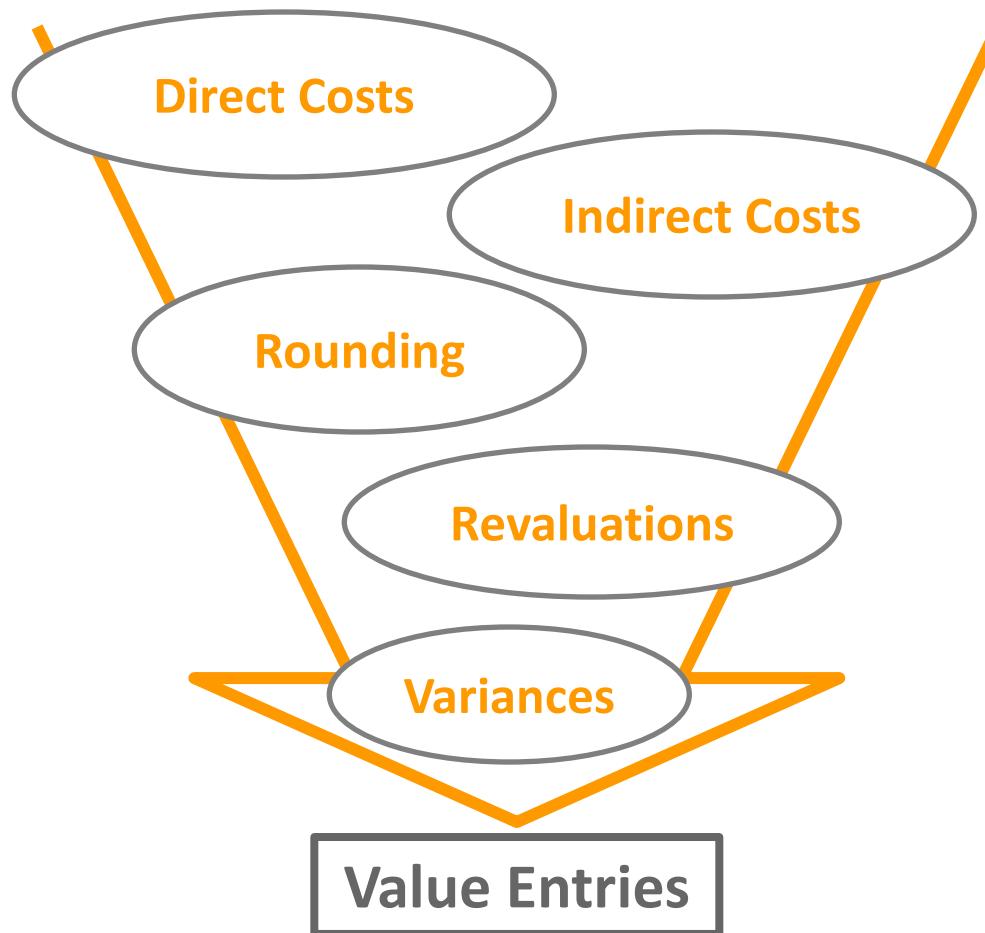
Accounting and inventory



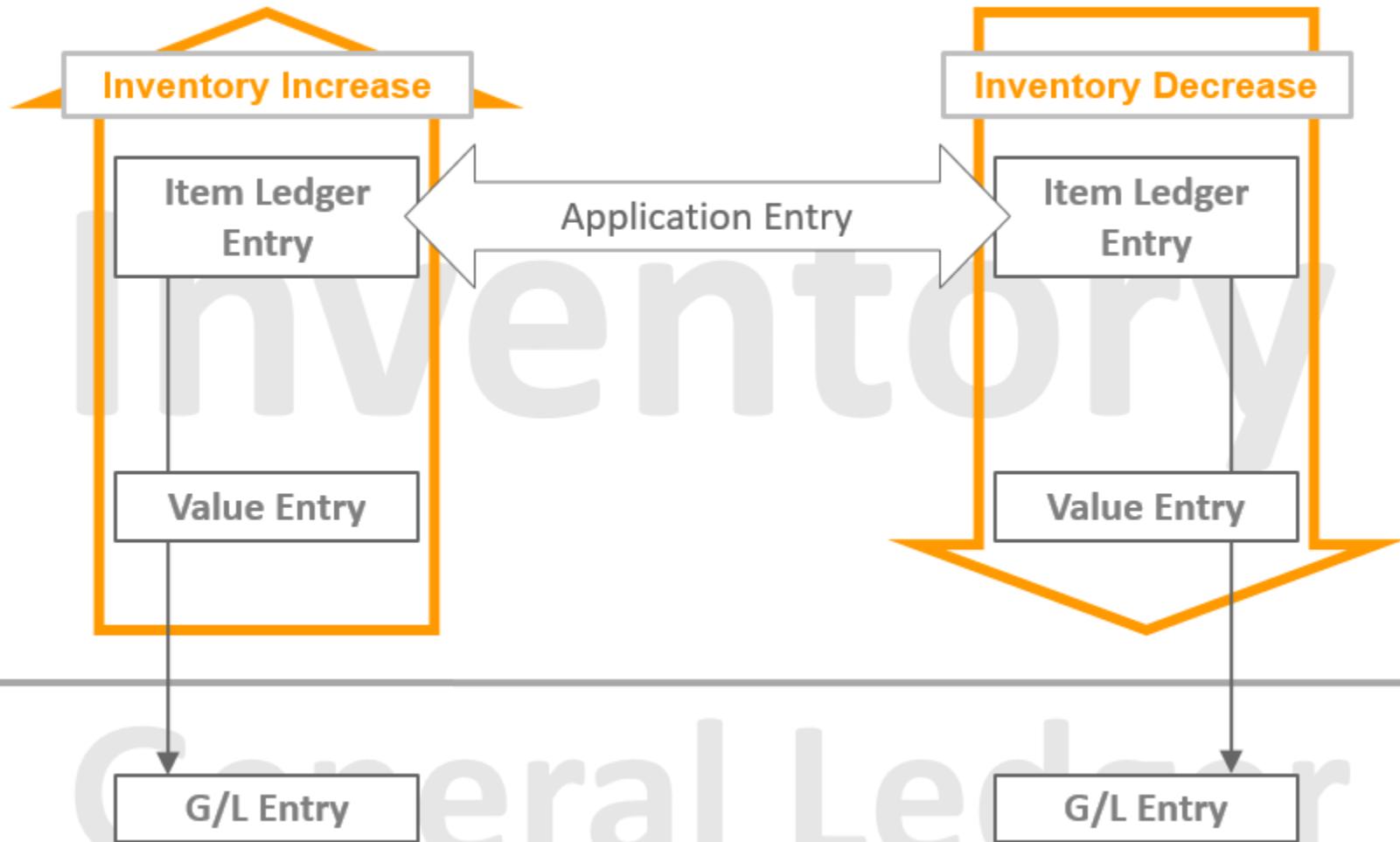
Inventory costing flow – zaúčtování množství



Inventory costing flow – zaúčtování hodnoty



Inventory posting flow



FIFO

Costing Methods

First In, First Out (FIFO)

Posting Date	Cost Amount (Actual)	Entry No.
1/1/2010	10	1
1/1/2010	20	2
1/1/2010	30	3
1/2/2010	-10	4
1/3/2010	-20	5
1/4/2010	-30	6

LIFO

Posting Date	Cost Amount (Actual)	Entry No.
1/1/2010	10	1
1/1/2010	20	2
1/1/2010	30	3
1/2/2010	-30	4
1/3/2010	-20	5
1/4/2010	-10	6

Average

Posting Date	Cost Amount (Actual)	Entry No.
1/1/2010	10	1
1/1/2010	20	2
1/1/2010	30	3
1/2/2010	-20	4
1/3/2010	-20	5
1/4/2010	-20	6

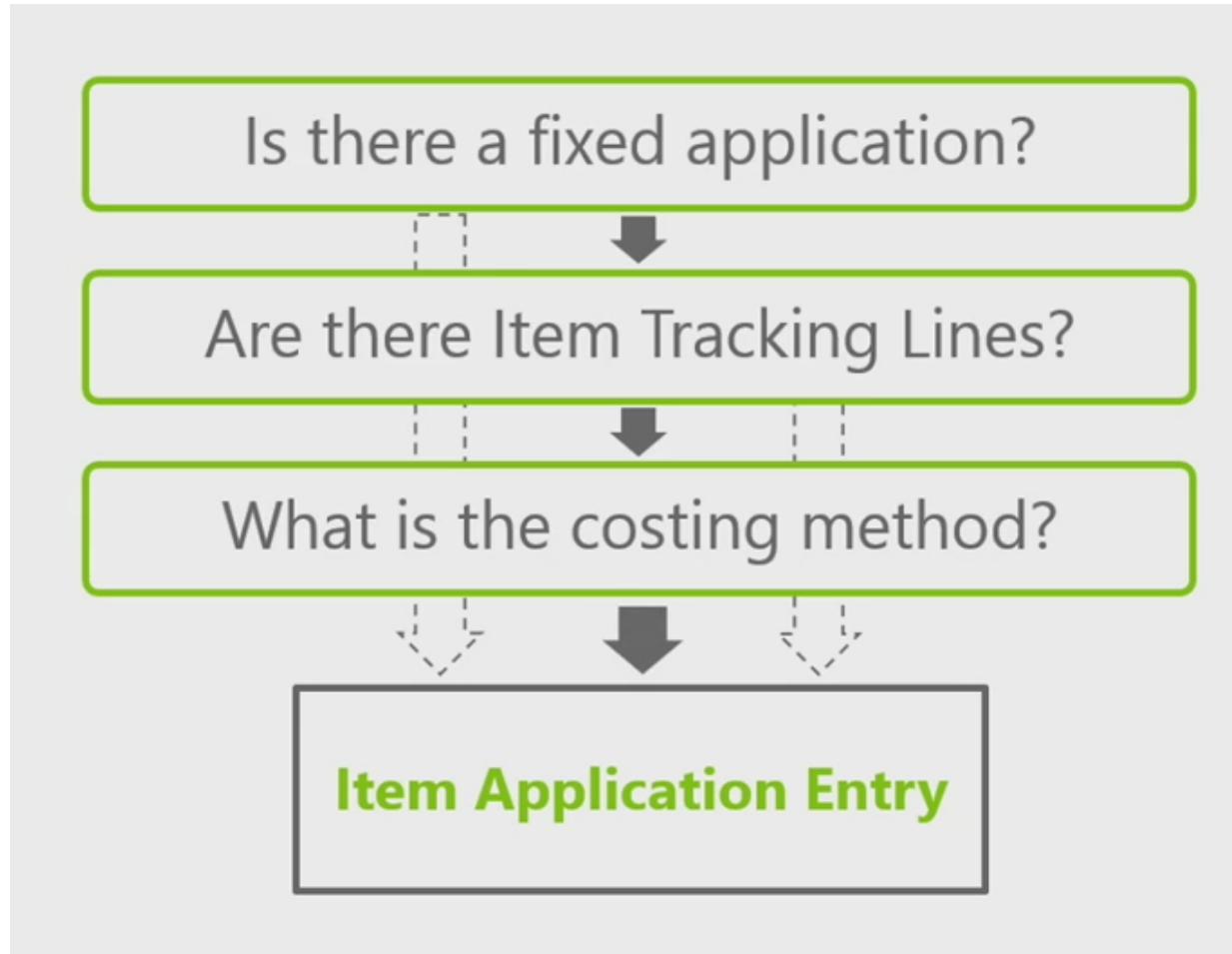
Specific (Fixed application)

Posting Date	Cost Amount (Actual)	Entry No.	Applies-to Entry No.
1/1/2010	 10	1	
1/1/2010	 20	2	
1/1/2010	 30	3	
1/2/2010	 -20	4	2
1/3/2010	 -10	5	1
1/4/2010	 -30	6	3

Viz označování položek s pomocí šarží !!! Výběr vyrovnání je určován uživatelem.

Application algorithm

- algoritmus vyrovnávání



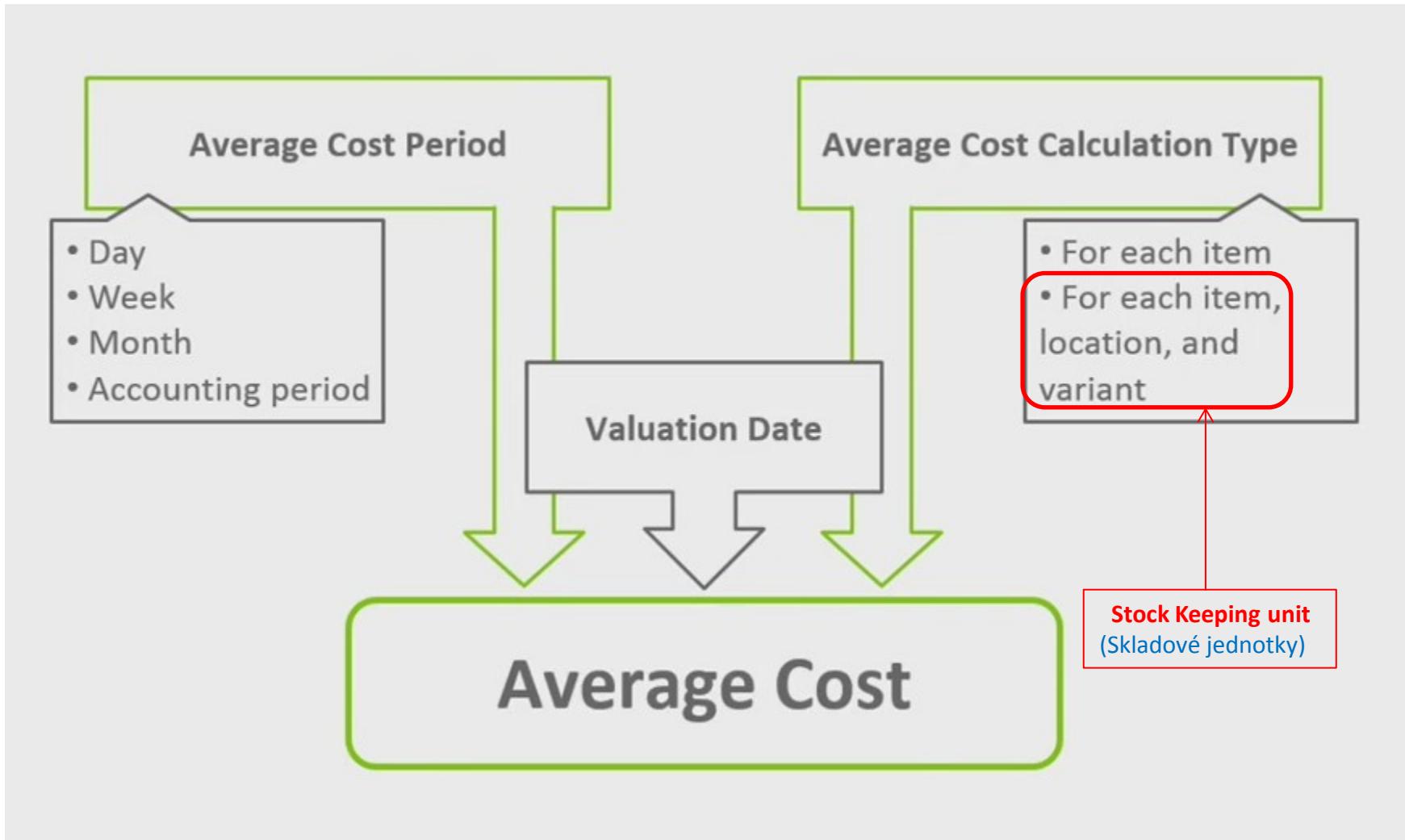
Standard – pevná cena

Posting Date	Cost Amount (Actual)	Entry No.
1/1/2010	15	1
1/1/2010	15	2
1/1/2010	15	3
1/2/2010	-15	4
1/3/2010	-15	5
1/4/2010	-15	6

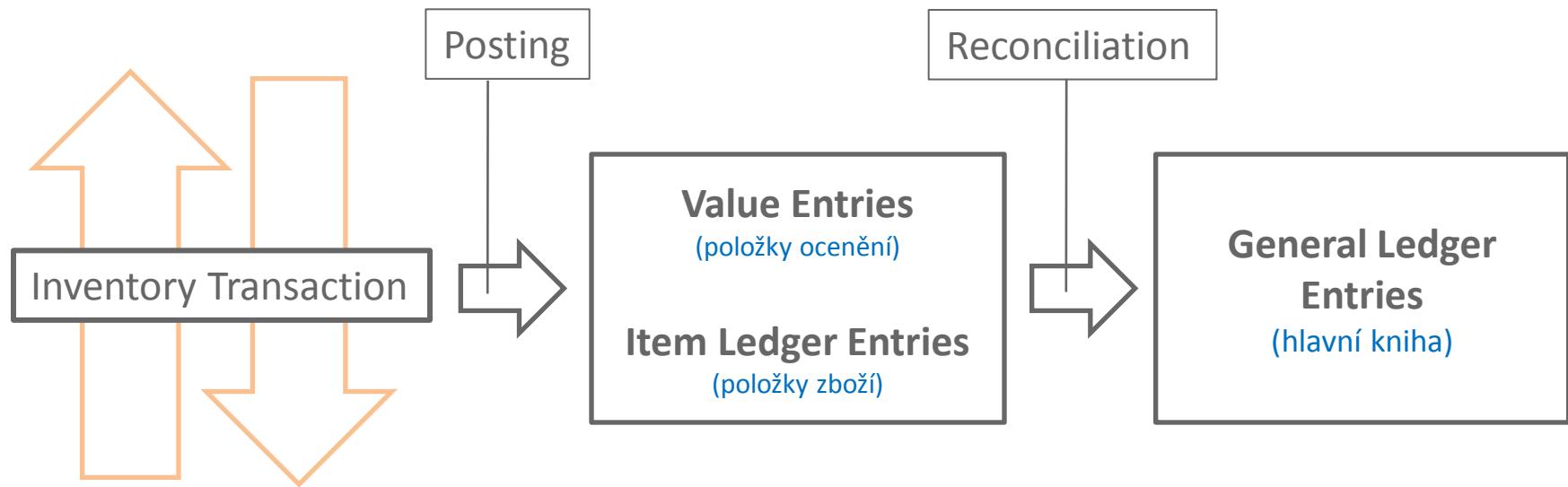
Fixed application -pevné vyrovnání

Posting Date	Cost Amount (Actual)	Entry No.	Applies-to Entry No.
1/1/2010	 10	1	
1/1/2010	 20	2	
1/1/2010	 30	3	
1/2/2010	 -20	4	2
1/3/2010	 -10	5	1
1/4/2010	 -30	6	3

Average Cost Calculation



Inventory Value determination



Average Cost calculation setup

Inventory Setup

General

Automatic Cost Posting:	<input type="checkbox"/>
Expected Cost Posting to G/L:	<input type="checkbox"/>
Automatic Cost Adjustment:	Never
Average Cost Calc. Type:	<input type="text" value="Item"/> <input type="button" value="▼"/>
Average Cost Period:	<input type="text" value="Day"/> <input type="button" value="▼"/>
Copy Comments Order to Shpt.:	<input checked="" type="checkbox"/>
Copy Comments Order to Rcpt.:	<input checked="" type="checkbox"/>
Outbound Whse. Handling Time:	<input type="text"/>
Inbound Whse. Handling Time:	<input type="text"/>

Average Calculation per day

Invoicing

Costing Method:	Average
Cost is Adjusted:	<input type="checkbox"/>
Cost is Posted to G/L:	No
Standard Cost:	0,00
Unit Cost:	10,00
Overhead Rate:	0,00
Indirect Cost %:	0
Last Direct Cost:	14,00
Price/Profit Calculation:	Profit=Price-Cost
Profit %:	0

3 times Purchase of one item
 With Costing methods=Average,
 Costs 10, 12 and 14 -> $36/3=12$

Average Cost Calc. Overview

Type to filter (F3) | Type | |

No filters applied

Type	Valuation Date	Item No.	Unit Cost	Cost is ...	Entry Type	Quantity	Cost Amount (Expected)	Cost Amount (Actual)
▲ Closing Entry	31.01.2017	AVRG_01	10,00	<input type="checkbox"/>		1	0,00	10,00
Increase	31.01.2017	AVRG_01	10,00	<input type="checkbox"/>	Purchase	1	0,00	10,00
▲ Closing Entry	01.02.2017	AVRG_01	11,00	<input type="checkbox"/>		2	0,00	22,00
Increase	01.02.2017	AVRG_01	12,00	<input type="checkbox"/>	Purchase	1	0,00	12,00
■ Closing Entry	02.02.2017	AVRG_01	12,00	<input type="checkbox"/>		3	0,00	36,00
Increase	02.02.2017	AVRG_01	14,00	<input type="checkbox"/>	Purchase	1	0,00	14,00

Average Calculation per day

Average Cost Calc. Overview ▾

Type to filter (F3) | Type ▾ | ➔ ▾

No filters applied

Type	Valuation Date	Item No.	Unit Cost	Cost is ...	Entry Type	Quantity	Cost Amount (Expected)	Cost Amount (Actual)
⌚ Closing Entry	31.01.2017	AVRG_01	0,00	<input type="checkbox"/>		0	0,00	-10,00
Increase	31.01.2017	AVRG_01	10,00	<input type="checkbox"/>	Purchase	1	0,00	10,00
Decrease	31.01.2017	AVRG_01	20,00	<input type="checkbox"/>	Sale	-1	0,00	-20,00
⌚ Closing Entry	01.02.2017	AVRG_01	2,00	<input type="checkbox"/>		1	0,00	2,00
Increase	01.02.2017	AVRG_01	12,00	<input type="checkbox"/>	Purchase	1	0,00	12,00
⌚ Closing Entry	02.02.2017	AVRG_01	8,00	<input type="checkbox"/>		2	0,00	16,00
Increase	02.02.2017	AVRG_01	14,00	<input type="checkbox"/>	Purchase	1	0,00	14,00

We have sold by use of item journal one item with cost (manually entered) 20, so Closing Entry is $36-20=16$ and Unit Cost per one item is $16/2=8$

Posting Date	Entry Type	Document Type	Document No.	Item No.	Description	Location Code	Quantity	Lot No.	Invoiced Quantity	Remaining Quantity	Sales Amount (Actual)	Cost Amount (Actual)	Cost Amount (Non-Invtbl.)	Open	Order Type	Entry No.
31.01.2017	Purchase	T00002	AVRG_01		MODRÝ		1		1	0	0,00	10,00	0,00	<input type="checkbox"/>		359
01.02.2017	Purchase	T00003	AVRG_01		MODRÝ		1		1	1	0,00	12,00	0,00	<input checked="" type="checkbox"/>		360
02.02.2017	Purchase	T00004	AVRG_01		MODRÝ		1		1	1	0,00	14,00	0,00	<input checked="" type="checkbox"/>		361
31.01.2017	Sale	T00005	AVRG_01		MODRÝ		-1		-1	0	0,00	-20,00	0,00	<input type="checkbox"/>		362



After adjustment

Test Report (Not Posted)

Value Entry: Item No.: AVRG_01

Inventory Item	Item Ledger Entry Type	Document No.	Source No.	Inventory Posting Group	Posting Date	COGS	Inventory Adjustment	Direct Cost Applied	Overhead Applied	Purchase Variance	Mfg. Direct Cost Variance	Manufacturing Ovhd Variance	WIP Inventory	Inventory	Expected Cost
AVRG_01 Average_01															
25	Purchase	T00002		PRODEJ	31.01.17			-10,00						10,00	No
28	Sale	T00005		PRODEJ	31.01.17	20,00								-20,00	No
29	Sale	T00005		PRODEJ	31.01.17	-10,00								10,00	No
28	Purchase	T00003		PRODEJ	01.02.17			-12,00						12,00	No
27	Purchase	T00004		PRODEJ	02.02.17			-14,00						14,00	No
Inventory Cost Posted to G/L:										10,00					26,00
Inventory Cost Posted to G/L:										10,00					26,00

Values entered were 10+12+14 and finally applied value after sales was 10, so
 $36-10=26 = \text{ending inventory value}$

Invoicing

Costing Method:	Average
Cost is Adjusted:	<input checked="" type="checkbox"/>
Cost is Posted to G/L:	No
Standard Cost:	0,00
Unit Cost:	13,00
Overhead Rate:	0,00
Indirect Cost %:	0
Last Direct Cost:	14,00
Price/Profit Calculation:	Profit=Price-Cost
Profit %:	0



$$26/2=13$$

After adjustment

Invoicing

Costing Method:	Average
Cost is Adjusted:	<input checked="" type="checkbox"/>
Cost is Posted to G/L:	No
Standard Cost:	0,00
Unit Cost:	13,00
Overhead Rate:	0,00
Indirect Cost %:	0
Last Direct Cost:	14,00
Price/Profit Calculation:	Profit=Price-Cost
Profit %:	0

So manually entered unit cost=20 was replaced by applied item entry with cost 10

Type	Valuation Date	Item No.	Unit Cost	Cost is ...	Entry Type	Quantity	Cost Amount (Expected)	Cost Amount (Actual)
▪ Closing Entry	31.01.2017	AVRG_01	0,00	<input checked="" type="checkbox"/>		0	0,00	0,00
Increase	31.01.2017	AVRG_01	10,00	<input type="checkbox"/>	Purchase	1	0,00	10,00
Decrease	31.01.2017	AVRG_01	10,00	<input type="checkbox"/>	Sale	-1	0,00	-10,00
△ Closing Entry	01.02.2017	AVRG_01	12,00	<input checked="" type="checkbox"/>		1	0,00	12,00
Increase	01.02.2017	AVRG_01	12,00	<input type="checkbox"/>	Purchase	1	0,00	12,00
△ Closing Entry	02.02.2017	AVRG_01	13,00	<input checked="" type="checkbox"/>		2	0,00	26,00
Increase	02.02.2017	AVRG_01	14,00	<input type="checkbox"/>	Purchase	1	0,00	14,00

End of section

(Costing methods)

