

Microsoft Dynamics® 2009

# Standard Cost Conversion Guide

White Paper

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## Introduction

Microsoft Dynamics AX 2009 includes a revised standard cost costing method that functions differently from the Standard cost method used in previous versions.

This new standard cost method operates with stricter rules than other types of costing methods to prevent incorrect setup configurations. For example, certain parameters in the inventory model group are now dependent on each other, while others are mutually exclusive.

Inventory model groups that use the new standard cost costing method can only be assigned to one of two item types, Item and BOM, and can be manually assigned to an item only if the item is new, meaning that it has not yet been part of any inventory transactions.

In cases where the item is *not* new but a client wants evaluate the item using the new standard cost costing method, the inventory model group must be changed to the standard cost method using the standard cost conversion tool that is described in this document. (In Microsoft Dynamics AX 2009, it is not possible to change manually from one inventory model group to another when the new model group uses the standard cost method.) This tool ensures that the conversion process meets all the necessary requirements and includes all the mandatory steps for a successful conversion.

Use this document to evaluate your need to upgrade to the new standard cost method, to prepare for the upgrade, and to run and troubleshoot any problems with the upgrade itself.

This rest of this document is divided into the following sections:

- [Choosing a standard cost costing method](#)
- [Preparing for a costing method conversion](#)
- [Requirements for using the standard cost conversion tool](#)
- [Performing a standard cost conversion](#)
- [Appendix: Analyze whether data is ready for conversion](#)

## Choosing a standard cost costing method

Before choosing to use a standard cost costing method, it is important to understand the differences between the old and new standard cost models, as well as ensure that all stakeholders have agreed to any change in the inventory model.

### About the new standard cost costing method

Standard cost is an inventory costing method that is based on the standard cost principle, where inventory receipts and issues are valued using an item's active standard cost. Variances capture the differences arising between an item's standard cost and the actual cost of transactions. Microsoft Dynamics AX 2009 includes the following variances:

Feature area	Variances
Purchase order	Purchase price variances

Inventory transfer, Sales order return	Cost change variances
Production	Lot size variances
	Production price variance
	Production quantity variance
	Production substitution variance

An item's standard cost is site specific and can be entered manually or, for manufactured items, calculated automatically. An item's standard cost is initially created with a status of "Pending" and must be activated before it can be used for production costing and inventory valuation.

Activating an item's standard cost (for an item held at standard cost) will result in a revaluation of the item's inventory and work in process, while a cost revaluation variance captures the difference between the two. Site-to-site transfers result in cost change variances when an item's standard costs differ between sites.

It is not necessary to run inventory close with the new standard cost valuation method, and manual marking does not apply for standard costs with Microsoft Dynamics AX 2009 as it did in previous versions.

An item's standard cost provides the basis for calculating purchase price variances when purchase order receipts and invoice entries are created, and for calculating production variances when a production order ends.

Production variances can optionally reflect the cost group breakdown and production variance types compared to a manufactured item's calculated cost, such as quantity or price variances related to material, labor, and overhead.

The settings listed in the following table are recommended when using the standard cost costing method in Microsoft Dynamics AX 2006.

Module	Application path	Recommended settings
Inventory Management	<b>Inventory management &gt; Setup &gt; Inventory &gt; Inventory model groups</b>	Post physical inventory = Yes Post financial inventory = Yes
Production	<b>Production &gt; Setup &gt; Parameters</b>	Posting picking list in ledger = Yes Post report as finished in ledger = Yes Use estimated cost price = No
Accounts Payable	<b>Accounts payable &gt; Setup &gt; Parameters</b>	Post packing slip in ledger = Yes
Accounts receivable	<b>Accounts receivable &gt; Setup &gt; Parameters</b>	Post packing slip in ledger = Yes

## About the old standard cost costing method

The standard cost method that was used in previous versions of Microsoft Dynamics AX has been renamed to "Fixed receipt price." This costing method price functions the way standard cost did in previous versions of Microsoft Dynamics AX. You can choose to continue using principles of the previous standard cost costing method without having to perform a costing method upgrade.

It is important to emphasize that the old standard cost method (now Fixed receipt price) and the new standard cost method are based on different business logic rules, and in certain scenarios they will result in different financial values in the General Ledger, as suggested in the following table.

Prior Costing method	New costing method	Cost method change	General Ledger impacted	Audit recommended
Weighted average	New standard cost	Yes	Yes	Yes
FIFO	New standard cost	Yes	Yes	Yes
LIFO	New standard cost	Yes	Yes	Yes
Weighted average, Date	New standard cost	Yes	Yes	Yes
Old standard cost	New standard cost	No	Potential*	Yes

\*If the pending cost during conversion is not equal to inventory value divided by on-hand quantity (Unit cost) as of the conversion date, the ledger will be impacted by the conversion.

## Considerations for changing a costing method

The decision to change the costing method that has been applied to all or some of a company's inventory items can require input or approval from many company stakeholders, both internal and external.

Internal stakeholders can include:

- Board of Directors
- Chief Financial Officer
- Controller

External stakeholders can include:

- Government or Tax authorities
- Auditors
- Shareholders (indirect influence)

Changing a costing method will affect both the inventory value and, as a direct result, the General Ledger. Generally the auditors associated with a company must approve the cost method change and conduct an audit to confirm that the inventory values and General Ledger were correctly updated by the conversion.

It is also a best practice to add a note to the financial statement declaring that a cost method change has occurred in the fiscal year and explaining what financial impact this has had on results for the current fiscal year.

## Preparing for a costing method conversion

Changing the costing method in use is challenging for both Partner and Client. We recommend that customers run the conversion to standard cost only with the involvement of their Partner. The conversion requires full knowledge of the constraints in the conversion tool, and of how Microsoft Dynamics AX 2009 allows users to mitigate these constraints. Those involved with the conversion process must possess a strong working knowledge of such areas in Microsoft Dynamics AX 2009 as Inventory and Finance.

Although every company's conversion process the new standard cost method will be different, you should plan your conversion to align with the following five major phases.

## Phase 1. Planning

In the conversion planning phase, you should answer the following questions:

- When will the transition period start?
- On what date will the actual conversion to standard cost occur?
- How and by whom should the conversion results be audited?
- Which types of items should be converted?
  - BOM items only
  - Both raw materials and BOM items

## Phase 2. Preparing client data and setting up for conversion

In the data preparation and setup phase, you should do the following tasks:

- Activate Multi-site functionality (if it is not already activated)
- Update client data to comply with the conversion requirements
- Set up the client's system to use the standard cost features they have requested:
  - Create cost group
  - Build costing sheet
  - Set up indirect cost
- Set up variance integration with the General Ledger
- Define a number sequence for revaluation
- Create a costing version to hold the new cost
- Add the current item cost
- Run the Check report (**Administration > Setup > System > Standard cost conversions > Check**) to make sure the system is in compliance, and use the reported non-compliance item list as a work list

## Phase 3. Pre-conversion tasks

Just before running the conversion tool, perform these tasks:

- Add the item cost and run BOM calculation on items to be converted
- Run the Check report (**Administration > Setup > System > Standard cost conversions > Check**) make sure the system is in compliance, and use the reported non-compliance item list as a work list

## Phase 4. Run the conversion

- Run the conversion to standard cost (**Administration > Setup > System > Standard cost conversions > Convert**)

## Phase 5. Post-conversion tasks

- Run inventory reports and compare results to the General Ledger
- Run a report on all revaluations posted during the conversion
- Submit the conversion results to auditors for approval

## Requirements for using the standard cost conversion tool

The standard cost conversion tool, which partners can use to help convert clients to the new standard cost costing method, is located at the following path:

- **Administration > Setup > System > Standard cost conversions**

The conversion tool has been placed in the **Administration** module because a conversion to standard cost should be run only after the Partner, Client, and Client's auditors have validated and approved the change of costing method.

**Note:** We recommend running the conversion in a test environment before running it in a live environment. The live database should also be backed up before the conversion process is run.

## Standard cost conversion caveats and requirements

The following issues should be factored into your standard cost conversion planning:

- [Standard cost requires Multi-Site activation](#)
- [A Standard cost conversion cannot be rolled back](#)
- [The conversion to Standard cost is run as of a particular defined date](#)
- [Item type issues with the Standard cost conversion](#)

### Standard cost requires Multi-Site activation

Microsoft Dynamics AX 2009 also introduces a new concept called Multi-Site. Multi-Site is a new inventory storage dimension with a direct link to the Warehouse inventory storage dimension. The dimension of Site can be used in a variety of ways in Microsoft Dynamics AX 2009. Most important in terms of costing, however, is that items can now be assigned different costs per site.

For the standard cost costing method, this means that two sites can produce the same item but at different standard costs (BOM calculation). This cost difference can occur because of differences in material prices, labor cost, machinery used, and so on.

The new standard cost costing method requires that Multi-Site functionality be activated. The system will not allow the creation of an inventory model group that uses standard cost unless Multi-Site is activated.

For customers who do not have, or do not require, several sites, the recommended practice is to create one site and set it up as the default site. The result in Microsoft Dynamics AX 2009 is that all inventory transactions will belong to this Site.

Compared to running a costing method conversion between FIFO and weighted average, the conversion to standard cost is more formal, with much stricter requirements. For other costing methods in Microsoft Dynamics AX, the costing



method that is assigned to the item as of the Inventory close date is used to cost the item transactions for previous period.

### **A standard cost conversion cannot be rolled back**

A change to the new standard cost costing method is permanent. Once an item has been converted to standard cost, the system cannot change the costing method on the item any longer.

The new standard cost costing method is a real-time costing method that works independent of inventory close. As of the conversion date, the system will post revaluations to Inventory and the General Ledger, adjusting the items to the cost defined in the conversion tool. After the conversion date, the inventory value and General Ledger will reflect the current active cost.

### **The conversion to standard cost is run as of a defined date**

In the conversion tool, a conversion date must be entered. The conversion to the new standard cost costing method will be effective as of this date. (The date is open for changes during the transition period if the Client needs to postpone or accelerate the conversion to standard cost. For more information about the transition period, see [Standard cost conversion phases.](#))

The system will not allow inventory transactions to be posted as of or after the conversion date. The Client can only accelerate the conversion to a date when no inventory transactions are scheduled in the future. If the conversion is done at a date later than the defined conversion date, then all transactions generated by the conversion tool will be posted with the conversion date. Again, the system will not allow any inventory transactions as of the conversion date or later on items that are to be converted.

Microsoft Dynamics AX 2009 does not provide date and time control over which inventory costing method applies to a specific inventory transaction. This has not been an issue in prior versions of Microsoft Dynamics AX because inventory close would adjust all issues in the defined period to the costing method at the item as of closing date. Because the new standard cost costing method works independently of inventory close, and because inventory close does not know which costing method the specific inventory transaction was posted with, the system has been designed to prevent posting as of the conversion date.

In sum, during the transition period, items that are part of a conversion record and have a status of "Planned" or "Converted" are blocked for inventory transactions as of the conversion date and in the future. After the conversion completes, the items are unblocked and inventory transactions can be posted as of the conversion date.

### **Item type issues with the standard cost conversion**

In Microsoft Dynamics AX, three different item types exist and each is associated with a distinct behavior:

- Item
- BOM
- Service

The item type Service differs from the other item types in that it does not hold a quantity in the inventory table (InventSum). Depending on how the inventory model

group associated with the Service item is set up, however, an inventory value can exist for a Service item (Post physical inventory and Post financial inventory).

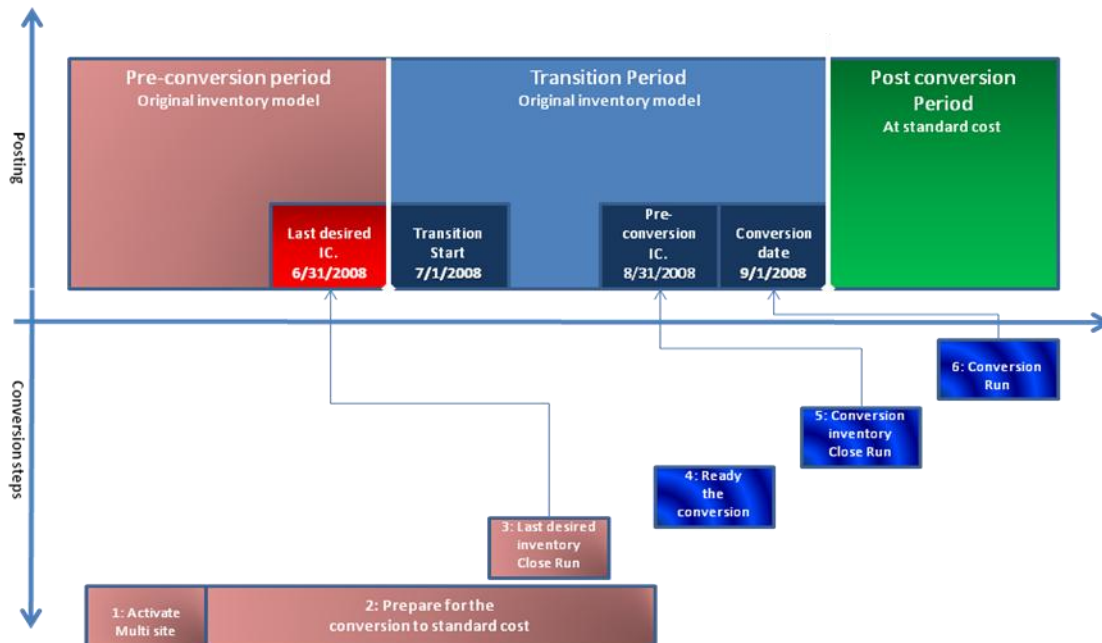
**Note:** We recommend that Service items not be posted to inventory, but instead expensed immediately at invoice update. The settings for these are *Post physical inventory = No* and *Post financial inventory = No*.

In general, however, Service items cannot be converted to the new standard cost costing method because no quantity exists in inventory (the InventSum table).

## Performing a standard cost conversion

### Standard cost conversion phases

The standard cost conversion tool supports a controlled conversion process. The following diagram provides an overview of the process built into the conversion tool, highlighting the periods and steps that client data must go through during the conversion process.



The conversion process involves three distinct periods. A time fence, referred to as the Transition period, lets you fully separate the Pre-conversion period from the Post-conversion period.

Period	Characteristics of the period
Pre-conversion	<p>This period is defined by the last desired inventory close using the original costing method. The Pre-conversion period ends on the date before the transition period starts. The conversion tool is designed so that an inventory close is forced before the system enters into the Transition period.</p> <p><b>Note:</b> Typically, the last inventory close should be at the end of a fiscal period or fiscal year.</p>

Transition	<p>The Transition period lets the Client properly handle the last planned inventory close (fiscal period or fiscal year). The length of this period is determined by the length of time required to be in a position to run the final required inventory closing.</p> <p><b>Note:</b> Inventory is still valued under the original costing method during the Transition period. The conversion tool allows inventory close or recalculations to be performed during the Transition period. This could be necessary depending on the length of the Transition period or the need for an updated cost.</p>
Post-conversion	<p>This period is defined by the conversion date. Inventory transactions after this date are not allowed until the conversion is complete. Items successfully converted are now valued under the new standard cost costing method. All inventory-related postings will be made at current active cost (standard cost) as of this date.</p> <p><b>Note:</b> It is not possible to back-date inventory transactions to a fiscal period prior to the Post-conversion period. Cancelling an inventory close's run prior the conversion period is not possible once the conversion is run with partial or complete success.</p>

The standard cost conversion tool is designed to reevaluate all open inventory transactions during the conversion. If an inventory transaction is partly settled as of the conversion date, the system is designed to split this inventory transaction into separate Closed (Open=No) and Open (Open=Yes) parts. The conversion tool uses the existing settlement principle when adjusting the inventory transactions.

In Microsoft Dynamics AX 2009, an inventory transaction can exist at one of two stages, Physical or Financial. The conversion tool will treat inventory transaction differently depending on their stage.

**Physical stage** - All inventory transactions at this stage are adjusted individually. The system will calculate the adjustment needed based on the current active cost, the quantity, and the current value of the inventory transaction. The conversion tool will post to appropriate ledger accounts based on the origin of the inventory transaction (Purchase order, sales order, etc.)

**Financial stage** - Inventory transaction at this stage are adjusted according to the FIFO principle. The conversion tool finds the inventory transactions that need to be adjusted in order to secure the correct inventory value. The system will calculate the adjustment needed based on the current active cost, the quantity, and the current value of the inventory transaction. The conversion tool will post to appropriate ledger accounts based on the origin of the inventory transaction, such as purchase order or sales order.

**Note:** This means that not all open inventory transactions at the Financial stage need to hold a value equal to the current active cost after the conversion to standard cost.

## Scenario: Convert to standard cost after year-end closing of previous fiscal year

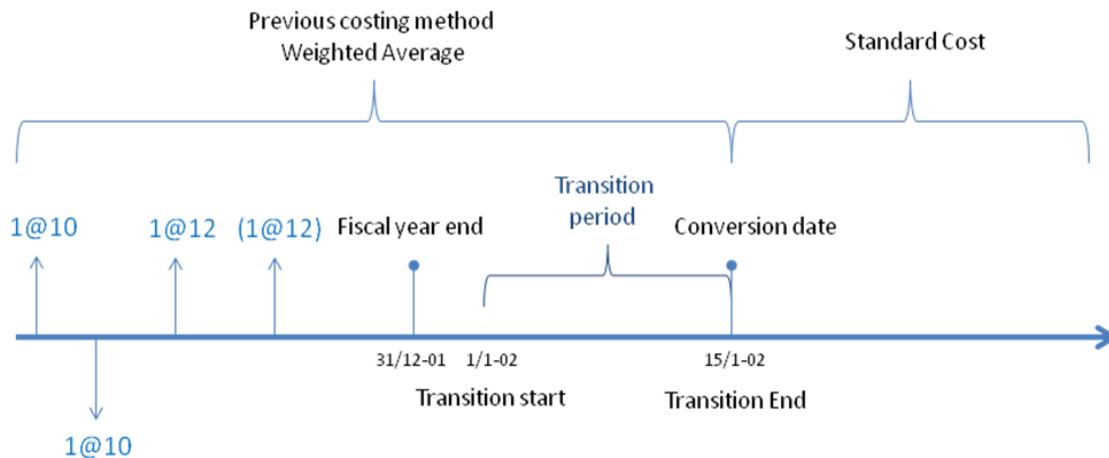
Your client wants to convert to standard cost after the year-end closing of the previous fiscal year.

The previous fiscal year ends on December 31, 2001, so you set the transition start date to January 1, 2002.

The year-end closing of previous fiscal year in general take place sometime in the next fiscal year. In the scenario below, the client is ready to close the previous fiscal year on January 15, 2002, so this will be set as the conversion date.

Suppose that an item holding some inventory transactions at the Physical and Financial stages is converted to standard cost. In addition:

- The previous costing method on the item was weighted average.
- The client has not posted new inventory transactions in the transition period.
- The cost set on the item to be activated during the conversion to standard cost is USD 12.50.

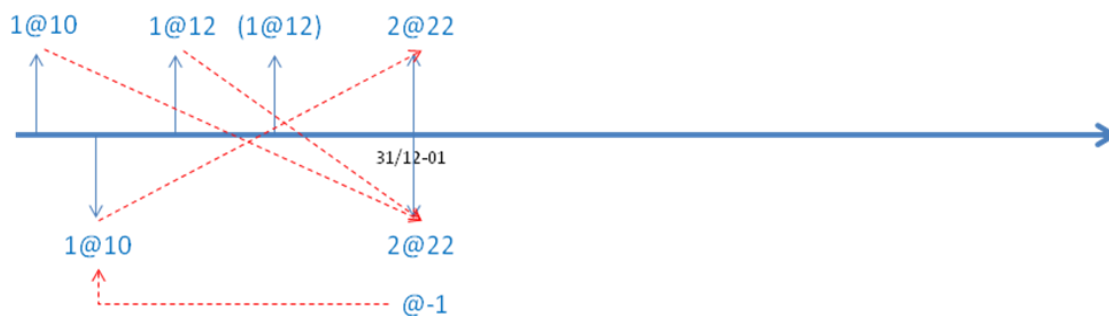


On January 15, 2002, the client runs inventory close with an "As of" date of December 31, 2001. This inventory close will result in an adjustment of the issue with the value of USD -1.00, so its value is USD -11.00 as of December 31, 2001.

The inventory status as of the fiscal year end date is as follows:

Physical On-hand = 1; Physical value = 12

Financial On-hand = 1; Financial value = 11



The Partner and Client then run the standard cost conversion on January 15, 2002. The system will check whether an inventory close exists on the day before the conversion date (January 14, 2002), and if one does not, it will run one. In this scenario, where no inventory transactions have been posted in the transition period, the inventory close will have no effect on this item.

After the inventory close run completes, the standard cost conversion tool runs the actual conversion. All inventory transactions at the Physical stage are converted (adjusted), so the Physical receipt in this scenario is adjusted by USD 0.50 during conversion. The Inventory transaction value is USD 12.00, and the cost activated by

the standard cost conversion tool is USD 12.50, which is a difference of USD 0.50. When inventory transaction quantity is 1.00, the conversion adjustment becomes USD 0.50.

In Microsoft Dynamics AX 2009, the inventory closing logic for weighted average is also different from that in previous versions. The new logic generates two new inventory transactions as of the inventory closing date.

**Note:** For more information about the new Inventory closing logic for weighted average, see the Microsoft Dynamics AX 2009 online help.

The new inventory transaction is only partly settled as of the conversion date. As of the conversion date (before conversion), the open value on this inventory transaction is Quantity = 1 and Value = USD 11.00. The cost activated by the standard cost conversion tool is USD 12.50, which is a difference of USD 1.50, and when the inventory transaction quantity is 1.00 the conversion adjustment becomes USD 1.50.

## Step by Step: Using the standard cost conversion tool

This step-by-step sample conversion procedure aims to demonstrate how the standard cost conversion tool works in Microsoft Dynamics AX 2009. This conversion of an item to standard cost in Microsoft Dynamics AX 2009 is based on the data in the sample scenario described above.

In this example, the conversion tool is working with two different inventory frameworks in parallel:

**Old inventory** - This framework is based on single transactions that are adjusted when the cost changes. In Microsoft Dynamics AX this framework is based on InventTrans and InventSettlement.

**New inventory** - This framework is based on summed transactions, and a new sum transaction is created when the cost (or the composition of its material, labor and overhead) changes. In Microsoft Dynamics AX 2009 this framework is based on InventCostTrans and InventCostTransVariance.

During a conversion of an item to standard cost, the old inventory framework is adjusted as previously outlined in this document. In the same process, the new inventory framework is populated so the item has two parallel inventory frameworks after the conversion.

### Item setup

Before conversion to standard cost, the inventory model group on item 'CON' was set up as follows:

- Costing method = Weighted average
- Include physical value = No
- Post physical inventory = Yes
- Post financial inventory = Yes

### Item transactions

Microsoft Dynamics AX has two basic types of inventory transactions, Receipts and Issues. The inventory transactions can originate from various modules, and they can exist at various predefined stages within each type.

The following illustration shows that four transactions have been posted on the item "CON":

- Two invoice-updated purchase orders (Financial cost amount = USD 10.00 and USD 12.00)
- One invoice-updated sales order (Financial cost amount = USD -10.00)
- One packing slip-updated purchase order (Physical cost amount = USD 12.00)

Transactions on item (1 - tkp) - Reference: Purchase order, 00033\_049, Item number: CON

Site	Warehouse	Physical date	Financial date	Reference	Number	Receipt	Issue	Quantity	Cost amount
S1	GW	11-12-2007	11-12-2007	Purchase order	00031_0...	Purchased		1,00	10,00
S1	GW	12-12-2007	12-12-2007	Sales order	00020_0...		Sold	-1,00	-10,00
S1	GW	13-12-2007	13-12-2007	Purchase order	00032_0...	Purchased		1,00	12,00
S1	GW	16-12-2007		Purchase order	00033_0...	Received		1,00	

Identify the site: EUR tkp usr 11-04-2008 14:57

### Creating a conversion record

The Partner creates a record in the standard cost conversion and fills in the fields according to the conversion plan agreed upon with the Client. The record includes the following settings:

- Description: A unique name is assigned to the record (WP)
- Transition date: The transition start date
- Conversion date: The actual conversion date
- Version: The name of the unique costing version used to type in cost and run BOM calculations
- Status: The current status of this standard cost conversion record
  - Planned: Open for edit
  - Ready: Conversion can be run
  - In progress: Not all items in the record have been converted
  - Completed: All items in the record have been converted
- Default model group: Assign a default inventory model group having the new standard cost as the costing method. This inventory model group will be assigned by default to all items imported into the conversion record. Because the inventory model group contains no costing parameters, this default inventory model group can be overridden on each item.

**Note:** Non-costing parameters such as physical negative inventory and quarantine Management can require the creation of several inventory model groups that are set to evaluate inventory using the standard cost costing method.

- You can add items to the conversion record in two ways:
  - Manually by using Ctrl+N (best when volumes are low)

- In groups by using the **Add items** button and building specific queries (best when volumes are high)

Standard cost conversion (1 - tkp) - Conversion date: 15-01-2008, Planned, Version: STD Con

File Edit Tools Command Help

Overview General

Description	Transition date	Conversion date	Version	Status	Default model group
WP	01-01-2008	15-01-2008	STD Con	Planned	STD

Update status  
Check  
Costing versions  
Convert

Items General

Item number	Item name	Item type	Use combination cost price	Status	Last checked	New model group	Previous model group
CON	CON	Item	<input type="checkbox"/>	Planned	00:00:00	STD	

Price  
Add items

Identification of inventory model group

EUR tkp usr 11-04-2008 15:03

### Create a costing version for conversion

A costing version in Microsoft Dynamics AX 2009 is a unified record for entering cost-related information. When running the conversion, Microsoft Dynamics AX 2009 will look up the cost within the related costing version and adjust the inventory value to reflect this cost by posting an inventory revaluation.

A costing version related to a conversion record has a costing type of "Conversion." After the conversion process completes, the costing type will change to "Standard cost."

If a cost is not found at the correct aggregated level in the costing version, conversion of the item will not complete successfully.

**Note:** In Microsoft Dynamics AX 2009, the conversion tool at minimum requires a cost assigned per existing site. The Check function evaluates whether items in the conversion record are ready for conversion and does not allow an update of the conversion record to a status of "Ready" unless a cost is specified per existing site. When the conversion process runs, it checks that a cost exists on all aggregated levels that have an InventSum.

The following illustration shows that the costing type has been set to Conversion on the **General** tab of the **Costing version setup** form.

Costing version setup (1 - tkp) - Conversion date: 15-01-2008, Planned, Version: STD Con

File Edit Tools Command Help

Overview General Recording Calculation

Identification  
Version: **STD Con**  
Description  
Name:

Blocking policies  
Block changes: No  
Block activation: Yes  
Last activation:   
Last update:   
Model  
Costing type: **Conversion**

Price  
Print  
Copy to  
Activate (b)  
Calculation

Identification of the costing version. EUR tkp usr 11-04-2008 17:24

The cost set as standard cost in this scenario is USD 12.50.

**Note:** In this example, all sites use the same standard cost, but the cost could have been specific per each site.

Item price (1 - tkp) - Version: STD Con, Version: STD Con

File Edit Tools Command Help

Version is blocked: ☐

Pending prices Active prices

Overview General Dimension

Item number	Price type	Site	Price	Price unit	Price misc. charges	Price quantity	L.	Unit	From date	B.	C.
CON	Cost	S1	12,50	1,00	0,00	0,00	<input checked="" type="checkbox"/>	Pcs	01-01-2008	<input type="checkbox"/>	<input type="checkbox"/>
CON	Cost	S2	12,50	1,00	0,00	0,00	<input checked="" type="checkbox"/>	Pcs	01-01-2008	<input type="checkbox"/>	<input type="checkbox"/>
CON	Cost	S3	12,50	1,00	0,00	0,00	<input checked="" type="checkbox"/>	Pcs	01-01-2008	<input type="checkbox"/>	<input type="checkbox"/>

Name: CON

Run-dependent price per unit. EUR tkp usr 11-04-2008 17:28

Calculation  
Summary  
Complete  
Print  
Cost rollup by cost group  
Activate  
Inventory  
Log

### Pre-check on the conversion record

The standard cost conversion tool includes a validation functional that is run when the **Check** button is clicked. This produces a report that lists all items that do not meet one or more standard cost conversion requirements. For each of these issues, a specific error message provides tips to help resolve the problem.

**Note:** We recommend running the validation report randomly during the Transition period to lessen the risk of having many violations as of conversion date that could cause a delay.



You can verify the last date and time that the validation was run for the specific item on the conversion record, as shown in the following illustration.

### Standard cost conversion checks

Transition date : 01-01-2008    Conversion date : 15-01-2008    Status : Planned    Version : [STD Con](#)

Item number	Item name	Inventory model group	Item type	Use combination cost price	New model group
<a href="#">CON</a>	<a href="#">CON</a>	<a href="#">WA</a>	Item	No	<a href="#">STD</a>

### Inventory close of last fiscal year

The Transition period starts the day after the inventory close of the prior fiscal year. This is also known as fiscal year inventory close. In general, inventory close is run after the Client has started the next fiscal year. Microsoft Dynamics AX 2009 provides the capability to specify any date as the closing date.

In this scenario, the fiscal year at the client follows the calendar year and ends by December 31, 2007, as shown in the following illustration.

Site	Warehouse	Physical date	Financial date	Reference	Number	Receipt	Issue	Quantity	Cost amount
S1	GW	11-12-2007	11-12-2007	Purchase order	00031_0...	Purchased		1,00	10,00
S1	GW	12-12-2007	12-12-2007	Sales order	00020_0...		Sold	-1,00	-11,00
S1	GW	13-12-2007	13-12-2007	Purchase order	00032_0...	Purchased		1,00	12,00
S1	GW	16-12-2007		Purchase order	00033_0...	Received		1,00	
S1	GW	31-12-2007	31-12-2007	Weighted average inventory closing		Purchased		2,00	22,00
S1	GW	31-12-2007	31-12-2007	Weighted average inventory closing			Sold	-2,00	-22,00

In the current inventory model group, the item "CON" has been set up to use the weighted average costing method. In Microsoft Dynamics AX 2009, the calculation and settlement logic behind weighted average has been optimized through the introduction of a new inventory transaction type for inventory close, the deletion of several unnecessary parameters related to weighted average, and a significant increase in performance.

**Note:** For more information about and examples of the new calculation and settlement logic behind the weighted average costing method, refer to the topic "About weighted average" in the Microsoft Dynamics AX 2009 online help.

### Inventory value at end of inventory close period

The inventory report "Physical inventory by item group" is run as of the fiscal year end date, which is December 31, 2007 in this scenario. The report is used to reconcile the Inventory and Ledger.

Physical on-hand inventory = 1; Physical value = USD 12.00

Financial On-hand inventory = 1; Financial value = USD 11.00

**Note:** In this scenario, no new inventory transactions are posted in the Transition period. If the transition period spans over several months, then Inventory close can be run within the Transition period.

THE LIGHT COMPANY  
Physical inventory by item group  
As on : 15-01-2008

Group	Item number	Item name	Financial quantity	Debited	Received	On-hand	Financial value	Physical value (entered)	Physical value (not entered)	Inventory value	Known financial difference	Estimated inventory value
CON	CON	CON	1.00	1.00	2.00	11.00	11.00	12.00		23.00		23.00
Item group	CON		1.00	1.00	2.00	11.00	11.00	12.00		23.00		23.00

Page 1  
16-01-2008  
17:42:55

## Final check on the conversion record

As of the conversion date and prior to running the conversion, we recommend a new validation of the conversion record by clicking the **Check** button. The final validation is to confirm that all items comply with the conversion requirements as of the conversion date.

**Note:** In a dynamic ERP system such as Microsoft Dynamics AX 2009, existing transactions can be updated, new transactions can be posted, and items that were previously validated can subsequently fail due to a change in the setup of an inventory model group or a quarantine order.

The Light Company

## Standard cost conversion checks

Page 1  
11-04-2008  
17:29:57

Transition date : 01-01-2008    Conversion date : 15-01-2008    Status: Planned    Version: [STD Con](#)

Item number	Item name	Inventory model group	Item type	Use combination cost price	New model group
<a href="#">CON</a>	<a href="#">CON</a>	<a href="#">WA</a>	Item	No	<a href="#">STD</a>

## Update status on conversion record

When all items listed in the conversion record comply with the validation rules, then the conversion record status can be updated to "Ready." To update the conversion record, click **Update status > Ready**.

The conversion record status can also be reset if changes to the record by any means are necessary. To reset the conversion record, click **Update status > Undo**.

Standard cost conversion (1 - tkp) - Conversion date: 15-01-2008, Ready, Version: STD Con

File Edit Tools Command Help

Overview General

Description	Transition date	Conversion date	Version	Status	Default model group
WP	01-01-2008	15-01-2008	STD C...	Ready	STD

Update status >

Check

Costing versions

Convert

Items General

Item number	Item name	Item type	Use combination cost price	Status	Last checked	New model group	Previous model group
CON	CON	Item	<input type="checkbox"/>	Checked	11-04-2008 17:43:29	STD	

Price

Add items

**Note:** Items cannot be added after the conversion record status has been updated to "Ready." If it becomes necessary to add or delete an item from the conversion record, the status must be reset to "Planned."

### Running the conversion

The actual conversion to the standard cost costing method is initiated by clicking the **Convert** button on the **Standard cost conversion** form. This button becomes active when the conversion record status reaches "Ready." The conversion process is designed so that each item is processed within its own TTSTBegin/TTSTCommit scope. Once an item has been converted successfully, the item status changes from "Checked" to "Converted." Once all items on the conversion record have been converted, the conversion record status changes from "Ready/In progress" to "Completed."

Before Microsoft Dynamics AX 2009 starts the conversion, the system will require some input from the person running the conversion process. This user input is a crucial element of the conversion.

The first input required concerns the parameter "Stop on error."

If Stop on error = Yes

- The conversion process stops when it reaches an item that does not meet one of the conversion requirements.
- The conversion record status is set to "In progress."
- The conversion can be resumed by clicking the **Convert** button.

If Stop on error = No

- The conversion process continues to the next item when it reaches an item that does not meet one of the conversion requirements.
- The conversion record status is set to "In progress"
- The conversion can be resumed by clicking the **Convert** button.

**Note:** The standard cost conversion tool does not offer the option to roll back already converted items when it reaches an item that causes a stop.

The following options apply:

- Remove the item that is causing the stop from the conversion record and resume the conversion.
- Correct the item so it complies with the requirements and resume the conversion.

The second input required concerns the parameter "Activate costing version."

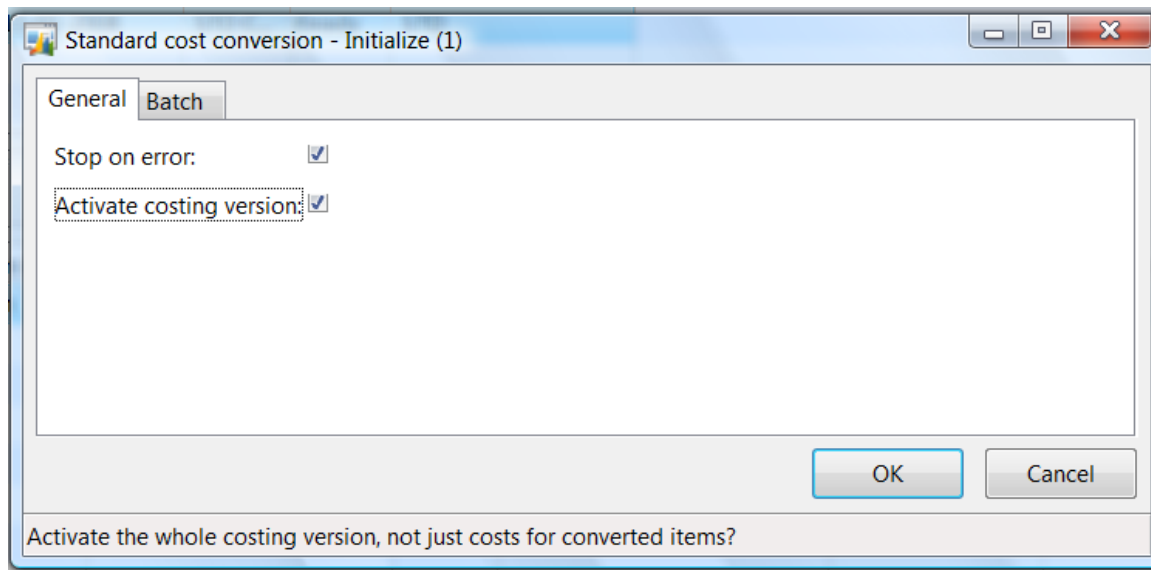
If Activate costing version = Yes

- Activate cost for all items in the costing version

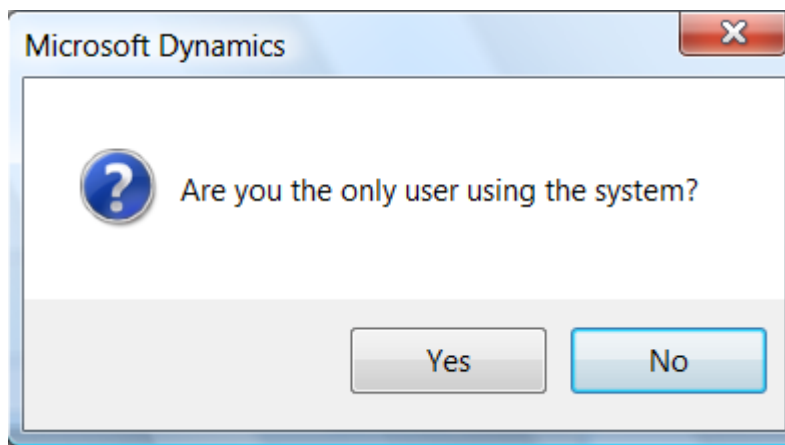
If Activate costing version = No

- Only cost for converted items are activated

**Note:** We recommend setting **Activate costing version** to “Yes.” This setup avoids unintended variances on BOM items in cases where items included in the BOM are not converted to standard cost by any means.

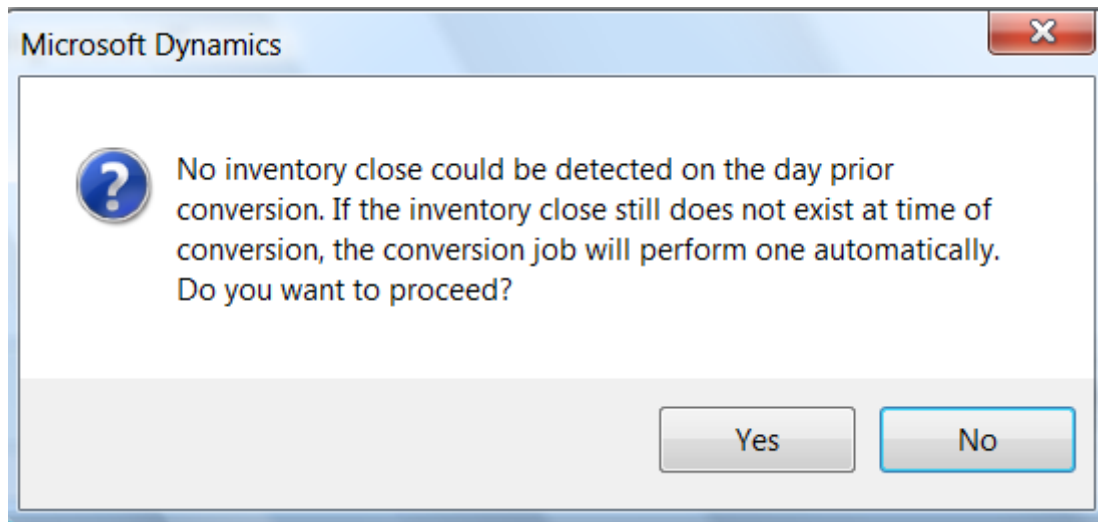


The conversion job requires that the conversion is run in a single user mode.

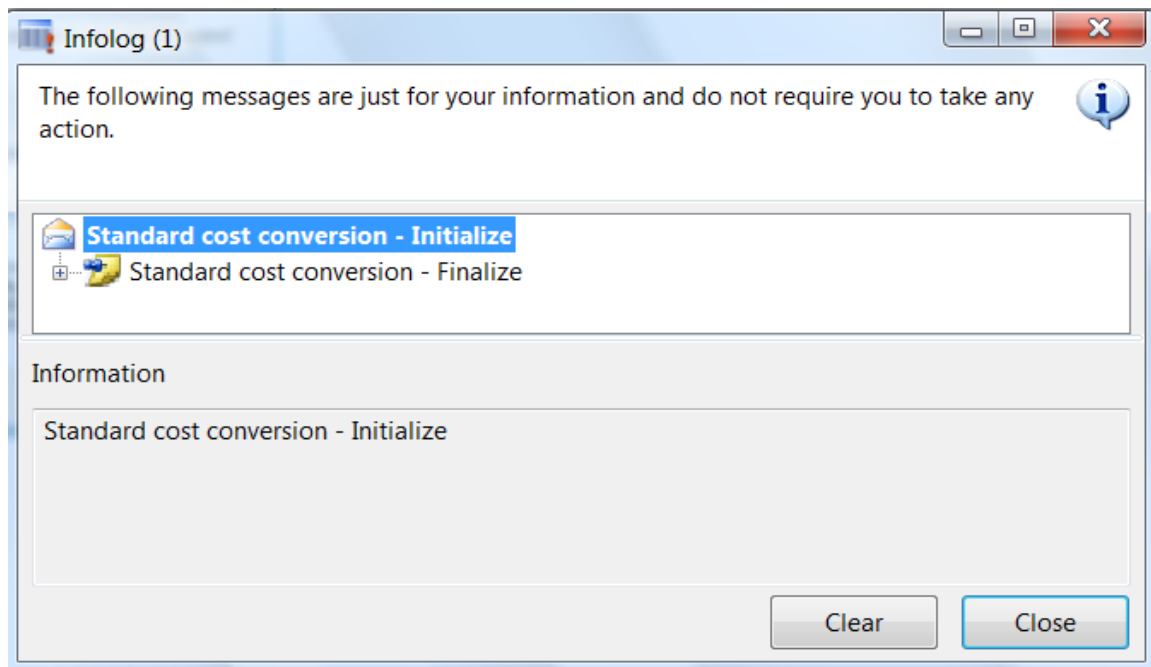


The conversion job requires that an inventory close has been run on the day just before the conversion job is run. This Inventory close job must be run to close the Transition period and correctly update cost on issues posted within the transition period. (This particular inventory close run is based on the current costing method.) The conversion job checks for an inventory close, and if no inventory close is found, it will run one.

**Note:** For security reasons, we recommend not allowing a conversion process to run an inventory close job.



The Conversion job ends with an Infolog stating that the conversion succeeded. In cases where errors have occurred and Clients have chosen to continue the conversion, the Infolog will list the items that failed and the causes of those failures.



The conversion record is updated based on the result of the conversion. In this scenario, it is a complete conversion:

- Conversion record Status = Completed
- The item Status = Converted

- Previous model group = Inventory model group prior to conversion

The following illustration shows a conversion record status of Completed and an item status of Converted.

### Inventory transactions after conversion

Analyzing inventory transactions on an item after conversion to standard cost can be a difficult task. The conversion job is designed to split inventory transactions if they are partly settled prior to the conversion. The intention of this split is to achieve two records, one that is fully closed (Open = No), and a second that is open (Open = Yes). This is in line with the general design of standard cost where all inventory transactions are kept open.

In this example scenario, one of the inventory transactions created by the inventory close process that is run prior to the start of the Transition period is split into two inventory transactions by the conversion, as illustrated in the following tables.

#### Before conversion

Quantity	Financial cost amount	Adjustment	Settled quantity	Settle amount	Value open
2,00	22,00		1,00	11,00	Yes

#### After conversion

Quantity	Financial cost amount	Adjustment	Settled quantity	Settle amount	Value open
1,00	11,00		1,00	11,00	No
1,00	11,00	1,50			Yes

The same data appears in the **Transactions on item** form as shown in the following illustration.

Site	Warehouse	Physical date	Financial date	Reference	Number	Receipt	Issue	Quantity	Cost amount
S1	GW	11-12-2007	11-12-2007	Purchase order	00031_0...	Purchased		1,00	10,00
S1	GW	12-12-2007	12-12-2007	Sales order	00020_0...		Sold	-1,00	-11,00
S1	GW	13-12-2007	13-12-2007	Purchase order	00032_0...	Purchased		1,00	12,00
S1	GW	16-12-2007	31-12-2007	Purchase order	00033_0...	Received		1,00	
S1	GW	31-12-2007	31-12-2007	Weighted average inventory closing		Purchased		1,00	11,00
S1	GW	31-12-2007	31-12-2007	Weighted average inventory closing			Sold	-2,00	-22,00
S1	GW	31-12-2007	31-12-2007	Weighted average inventory closing		Purchased		1,00	12,50

The conversion job revalues the open inventory transactions to standard cost by posting adjustments (settlements). Open Financial inventory transactions are selected by FIFO for adjustment and all Physical inventory transactions are adjusted.

In this example scenario, the inventory value is revalued in total by USD 2.00 during conversion to standard cost, as shown in the following illustrations.

Date	Voucher	Transaction	Principle	Settled quantity	Amount settled	Adjustment	Canceled
15-01-2008	000005_1...	00304_065	Adjustment			1,50	<input type="checkbox"/>

Date	Voucher	Transaction	Principle	Settled quantity	Amount settled	Adjustment	Canceled
15-01-2008	000005_1...	00303_065	Physical value			0,50	<input type="checkbox"/>

To begin analysis of the ledger postings, click the **Ledger** button and select **Voucher**.

The voucher series used for posting adjustments to inventory transactions that have been cost adjusted by the standard cost costing method is unique. In Microsoft Dynamics AX 2009, this voucher series is used for two purposes:

- Posting inventory cost revaluation during the conversion to standard cost
- Posting inventory cost revaluation during a cost change

A new voucher number is allocated per Item / Item Dimension / Site. This makes it easier to trace ledger postings relating to a single cost change.

## Number sequence must be set up prior to running the conversion job

To set the number sequence, click **Inventory Management > Setup > Parameters**, and then select the **Number sequences** tab and change the value in the **Number sequence code** column for the reference "Revaluation voucher."

Based on the inventory transaction type and on whether the transaction is financially updated or physically updated, the system is designed to post the inventory cost revaluation to the appropriate posting types. It is up to the Client and Partner to assign the appropriate ledger accounts to the posting types.

To make these assignments on the **Inventory posting** form, click **Inventory Management > Setup > Posting > Posting**.

Voucher transactions (1 - tkp) - Item number: CON, STD Con, Version: STD Con

File Edit Tools Command Help

Overview General Amount Dimension

Voucher	Date	Year closed	Ledger account	Journal	Currency	Amount currency	Amount	Amount secondary currency
000005_1...	15-01-20...		15060		EUR	0,50	0,50	0,00
000005_1...	15-01-20...		15030		EUR	1,50	1,50	0,00
000005_1...	15-01-20...		10		EUR	-2,00	2,00	0,00

Transaction text: Posting type: Inventory cost revaluation

Account name: Inventory cost revaluation

Ledger account number EUR tkp usr 15-01-2008 18:00

Origin Transactions Audit trail Posted sales tax Original document Related vouchers

## Inventory report after conversion to standard cost

After the conversion process, we recommend running a series of reports to confirm that the conversion to standard cost has produced correct and justifiable inventory values. Comparing the results of the following three reports can help verify that inventory transactions have been correctly adjusted in the following three reports:

The **On-hand inventory** report:

The Light Company

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14-05-2008  
16:09:41

### On-hand inventory

Item number	Site	Posted quantity	Deducted	Received	Physical reserved	Available physical	Ordered	Ordered reserved	Total available
CON	S1	1,00		1,00		2,00			2,00
Grand Total		1,00		1,00		2,00			2,00

The **Item prices** report:

The Light Company

Page 1  
14-05-2008  
16:12:11

### Item prices

As per date : 21-04-2008

Version : STD Con Fallock : No

Site :

Item number	Item name	Item type	Dimension No.	Site	Price type	Price	Price unit	Price misc. charges	Unit	Price quantity	From date	Status	Version
CON	CON	Item	ALB1	S1	Cost	12,50	1,00	0,00	Yes	0,00	15-01-2008	Current active	STD Con
CON	CON	Item	ALB2	S2	Cost	12,50	1,00	0,00	Yes	0,00	15-01-2008	Current active	STD Con
CON	CON	Item	ALB3	S3	Cost	12,50	1,00	0,00	Yes	0,00	15-01-2008	Current active	STD Con



The **Physical inventory by inventory dimension** report:

The Asset Company  
Physical inventory by inventory dimension  
As on: 15-01-2008

Item number	Item name	Site	Financial quantity	Debit/credit	Received	On-hand	Financial value	Physical value (posted)	Physical value (not posted)	Inventory value
CON	CON	S1	1,00		1,00	2,00	12,50	12,50		25,00

### New framework is populated

Microsoft Dynamics AX 2009 introduces a new inventory framework (InventCostTrans and InventCostTransVariance). This new inventory framework functions only with the standard cost costing methods, and in Microsoft Dynamics AX 2009 it exists in parallel with the old inventory framework.

To view the related transactions form, click **Inventory Management > Inquiries > Transactions > Standard cost transactions**.

**Note:** Physical issues to production orders will be revaluated in a separate Summed transaction with a reference of "WIP revaluation."

## Appendix: Analyze whether data is ready for conversion

When you use the standard cost conversion tool, several validations are run on the items selected for conversion. This is to ensure that the conversion to the new standard cost can complete correctly.

In this section, we will examine not only issues that can prevent an item from being converted to standard cost, but that can also cause unexpected revaluations during the conversion.

### Handling negative inventory

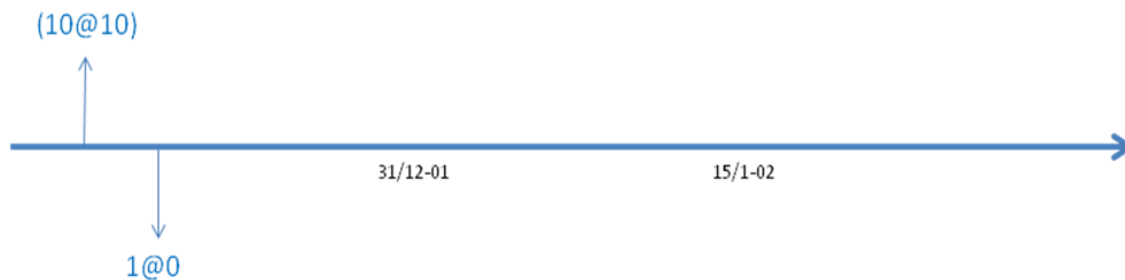
In Microsoft Dynamics AX 2009, it is possible to set up the system to allow physical or financial negative inventory. When the system reaches negative inventory, the cost is taken from the costing versions or item master, depending on the client setup. There is no requirement for the FIFO, LIFO, weighted average or fixed receipt price costing methods to enter a cost in a costing version or fill out the cost field on the item master. The cost is not updated by inventory close in these methods, so the value in this field can be out of sync with the actual inventory cost.

### Scenario: Financial negative inventory

The following setup illustrates a common scenario for negative financial inventory:

- Financial negative inventory = Yes; Include physical value = No (on the Inventory model group); Costing method = FIFO.
- A quantity of 10 is received (Physical), and then a quantity 1 is sold (Financial) to a customer.
- The cost activated during the standard cost conversion is USD 10.00.

In this scenario, Microsoft Dynamics AX 2009 will use the cost on the item master when posting the issue. This cost can be outdated or even USD 0.00. In the scenario illustrated below, the cost in the Item master is set to USD 0.00.

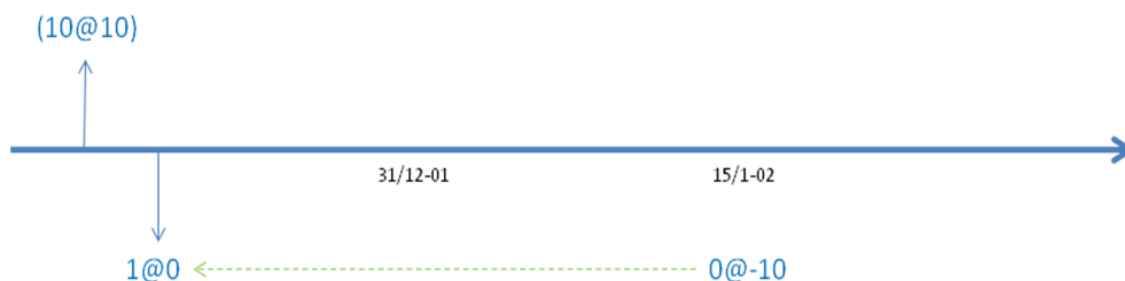


The inventory close that is run as part of the conversion tool cannot update the cost of the issue because physical inventory transactions are not incorporated (due to this particular parameter setup). Only after the financial receipt is posted can the inventory close job correct the cost on the issue.

The inventory status before conversion to standard cost:

Physical on-hand = 10; Physical value = 100

Financial on-hand = USD -1.00; Financial value = USD 0.00



The inventory status after conversion to standard cost:

Physical on-hand = 10; Physical value = 100

Financial on-hand = USD -1.00; Financial value = USD -10.00

The result in the above scenario is that the inventory value and the General Ledger are adjusted by USD -10.00 during conversion to standard cost.

The adjustment posted on the sales order (physical) will be posted on the ledger accounts associated with the following posting types:

- Issue
- Inventory cost revaluation

**Note:** We recommend that items holding either physical or financial negative inventory prior to a conversion to standard cost be checked to see if the inventory value corresponds to the quantity in inventory.

## Handling sales orders

In Microsoft Dynamics AX 2009, a conversion to the new standard cost costing method can potentially affect sales orders related to an item that is set for conversion.

- The standard cost conversion will adjust all packing slip updated (Physical) sales orders.
- The standard cost conversion will adjust invoice updated (Financial) sales orders in cases where the on-hand inventory is negative.

The best practice in this case is to invoice update all sales orders on items before converting these items to standard cost.

### Scenario: Sales orders exist, only packing slip updated on conversion date

In this scenario, Microsoft Dynamics AX will use the running average cost (estimated cost) when posting the issue with the following parameters:

- Financial negative inventory = No; Include physical value = No (on the Inventory model group); Costing method = FIFO.
- A quantity of 10 is purchased (Financial), and then a quantity of -1 is deducted (Physical) to a customer.
- The cost activated during the standard cost conversion = USD 11.00

The illustration below shows that the running average cost equals the purchased cost, as only one purchase exists.

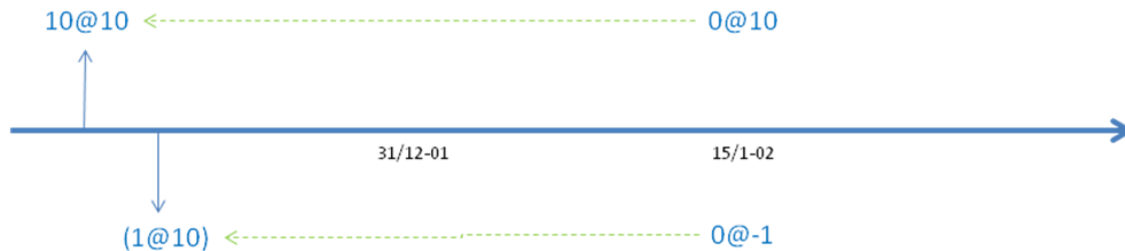


The inventory close that is run as part of the conversion tool doesn't create an adjustment because the issue has the correct cost.

The inventory status before conversion to standard cost:

Physical on-hand = -1; Physical value = -10

Financial on-hand = USD 10.00; Financial value = USD 100.00



The inventory status after conversion to standard cost:

Physical on-hand = -1; Physical value = -11

Financial on-hand = USD 10.00; Financial value = USD 110.00

The result of the above scenario is that the inventory value and General Ledger are adjusted by USD 9.00 during conversion to standard cost.

The adjustment posted on the sales order will be posted on the ledger accounts associated with the following posting types:

- Packing slip, sales
- Packing slip offset, sales

## Handling un-posted inventory transactions

The standard cost conversion tool also addresses inventory transactions (both Physical and Financial) that are not yet posted to the General Ledger.

In this section, the main focus is on the following item types:

- Item
- BOM

Only items with either of these item types are accepted for conversion to the new standard cost costing method.

In Microsoft Dynamics AX 2009, the parameters "Post physical inventory" and "Post financial inventory" can be set up according to client requirements in inventory model groups when the inventory costing method is LIFO, LIFO date, FIFO, weighted average or weighted average date.

The settings can be adjusted on the **Setup** tab of the **Inventory model groups** form:

If you don't select these parameters correctly, the ledger accounts associated with inventory posting types will not correctly reflect the inventory value in the ledger.

- Post physical inventory = No (Packing slips are not posted to ledger)
- Post financial inventory = No (Invoices are posted to consumption account in ledger)

**Note:** It is not best practice to set an item of the type "Item" or "BOM" with Post financial inventory = No.

The standard cost conversion tool requires that all physical inventory transactions as of the conversion date comply with the following criteria:

- Physical posted = Yes

The standard cost conversion tool requires that all financial inventory transactions with value open = Yes as of the conversion date comply with the following criteria:

- Post financial inventory = Yes (As of inventory transaction date)
  - Balance and Profit & Loss account is set on the InventTrans
- Financial posted = Yes

The posting status of an inventory transaction can easily be checked in Microsoft Dynamics AX 2009 by clicking **Inventory Management > Item Details**, and then

clicking the **Transactions** button, selecting the **Update** tab, and referring to the **Ledger** field group.

### How to check Packing Slip-updated inventory transactions

This inventory transaction is ready to convert, because the ledger is physically posted.

The screenshot shows the 'Transactions on item' window for item 00002, reference purchase order 00052\_049. The 'Update' tab is active. The 'Physical' section shows a physical date of 30-04-2008, physical voucher 100038\_055, and a physical cost amount of 12,00. The 'Ledger' section shows 'Physically posted' as checked and 'Financially posted' as unchecked. The 'Financial' and 'Settlement' sections are empty. The status bar at the bottom indicates 'Date of physical transaction' as 30-04-2008 12:42.

This inventory transaction is NOT ready to be converted, because the ledger is not physically posted.

The screenshot shows the 'Transactions on item' window for item 00001, reference purchase order 00051\_049. The 'Update' tab is active. The 'Physical' section shows a physical date of 30-04-2008, physical voucher 100037\_055, and a physical cost amount of 12,00. The 'Ledger' section shows both 'Physically posted' and 'Financially posted' as unchecked. The 'Financial' and 'Settlement' sections are empty. The status bar at the bottom indicates 'Date of physical transaction' as 30-04-2008 12:34.

## How to check Invoice-updated inventory transactions

This inventory transaction is ready to be converted:

Transactions on item (1 - tkp) - Reference: Purchase order, 00054\_049, Item number: 00004

File Edit Tools Command Help

Overview General Update Ledger Reference Other Dimension

Physical

Physical date: 30-04-2008

Physical voucher: 110028\_056

Picking route:

Packing slip:

Physical cost amount: 12,00

Physical revenue:

Ledger

Physically posted: ☐

Financially posted: ☒

Financial

Financial date: 30-04-2008

Financial voucher: 110028\_056

Invoice: InV0002

Financial cost amount: 12,00

Adjustment:

Profit & Loss, posted amount:

Unposted invoice:

Settlement

Financially closed:

Settled quantity:

Amount settled:

Inventory

Ledger

Functions

Configuration details

Date of physical transaction EUR tkp usr 30-04-2008 16:25

Transactions on item (1 - tkp) - Reference: Purchase order, 00054\_049, Item number: 00004

File Edit Tools Command Help

Overview General Update Ledger Reference Other Dimension

Posting - physical

Physical posting:

Physical offset:

Posting - financial

Balance sheet posting: Purchase, receipt

Profit & Loss posting: Purchase, consumption

Accounts - physical

Physical account:

Physical offset account:

Accounts - financial

Balance account: 15030

Profit & Loss account: 50270

Inventory

Ledger

Functions

Configuration details

Balance account used for the transaction in connection with item transactions EUR tkp usr 30-04-2008 16:27

This inventory transaction is NOT ready to be converted:

Transactions on item (1 - tkp) - Reference: Purchase order, 00053\_049, Item number: 00003

File Edit Tools Command Help

Overview General Update Ledger Reference Other Dimension

Physical

Physical date: 30-04-2008

Physical voucher: 110027\_056

Picking route:

Packing slip:

Physical cost amount: 12,00

Physical revenue:

Financial

Financial date: 30-04-2008

Financial voucher: 110027\_056

Invoice: INV0001

Financial cost amount: 12,00

Adjustment:

Profit & Loss, posted amount: 12,00

Unposted invoice:

Settlement

Financially closed:

Settled quantity:

Amount settled:

Ledger

Physically posted: ☐

Financially posted: ☒

Date of physical transaction: EUR tkp usr 30-04-2008 16:09

Transactions on item (1 - tkp) - Reference: Purchase order, 00053\_049, Item number: 00003

File Edit Tools Command Help

Overview General Update Ledger Reference Other Dimension

Posting - physical

Physical posting:

Physical offset:

Accounts - physical

Physical account:

Physical offset account:

Posting - financial

Balance sheet posting:

Profit & Loss posting: Purchase, consumption

Accounts - financial

Balance account: 50270

Profit & Loss account: 50270

Ledger account: 50270, Cost of Returned Goods

Transaction type attached to the ledger account: EUR tkp usr 30-04-2008 16:12

The Check function in the standard cost conversion tool, which must be run before the conversion job, will not report items holding inventory transactions posted as in the case above, but the conversion job will not be able to convert an item holding such inventory transactions.

The partner and client will have to take suitable action on items that are not in compliance with the standard cost conversion requirements. Working with item data and posted inventory transactions is a task where caution is very important. Items should be evaluated on a case-by-case basis.

### Mitigation

The suggested solutions listed below should be considered when evaluating fixes to items that do not comply with the standard cost conversion requirements. The partner and client share the responsibility when correcting data.

**Case 1:** The item cannot convert because physical updated inventory transactions are not posted to the ledger.

This solution has a low risk and requires a minimal data correction. The tradeoff is that end of transition period (conversion date) cannot be specified as of a particular date. The transition period must run until the last physical inventory transaction not posted to the ledger is financially updated.



1. Set the transition date
2. As of the transition date, change the inventory model group on the item
3. Set up the inventory model group as follows:
  - Post physical to ledger = Yes
  - Post financial to ledger = Yes
4. The Partner and Client monitor the status on Physical inventory transactions
5. Conversion can take place when all Physical inventory transactions are posted to the ledger
6. Specify the conversion date
7. Run the conversion process

**Note:** Within the transition period, Physical inventory will to some extent exist in the ledger. New physical inventory transactions will create ledger transactions at the time of posting. In Microsoft Dynamics AX 2009, the inventory reports named "Physical inventory by item group" and "Physical inventory by inventory dimension" will have two columns, one labeled "Posted to ledger" and the other "Not posted to ledger," so the inventory value can be reconciled with the ledger.

### Handling quarantine orders

In Microsoft Dynamics AX 2009, it is possible to activate Quarantine Management on the inventory model group. Items set with such an inventory model group will have quarantine orders generated automatically when a purchase order is packing slip updated (Physically updated).

The inventory transactions generated by the Quarantine Management system is not posted to the ledger even though the inventory model group is set up to do so.

**Note:** In the current design of Quarantine Management and the related quarantine orders, it would be financially incorrect to post these inventory transactions to the ledger.

Site	Warehouse	Physical date	Financial date	Reference	Number	Receipt	Issue	Quantity	Cost amount
S1	GW			Quarantine order	00001_0...	Ordered		10,00	
S1	Q-GW			Quarantine order	00001_0...		Reserved physical	-10,00	
S1	GW	21-05-2008		Purchase order	00020_0...	Received		10,00	
S1	GW	21-05-2008		Quarantine order	00001_0...		Deducted	-10,00	
S1	Q-GW	21-05-2008		Quarantine order	00001_0...	Received		10,00	

Status for quantity in relation to issues

EUR tt usr 21-05-2008 15:08

When running the Check functionality in the standard cost conversion tool, and the conversion record includes an item with a quarantine order with status of Started, an error will occur and it will not be possible for the conversion record to be updated to a status of "Ready."

The error message presented in the report titled "Standard cost conversion checks" is identical to the error message presented if a packing slip update on a purchase order is not posted to the ledger. The current design does not distinguish between these two types of errors because their symptoms are the same.

The Light Company					
Standard cost conversion checks					
Transition date : 21-05-2008    Conversion date : 22-05-2008    Status : Planned    Version : 1					
Use combination cost price New model group					
Item number	Item name	Inventory model group	Item type	price	group
02	02	AEG	Item	No	ConlmgStd
Model group					
Item cannot be converted to standard cost when physically updated inventory transactions exist, which have not been posted in ledger.					

The report located under the path **Inventory Management > Reports > Status > Items in quarantine** can be used to determine whether the error message is related to a quarantine order.

**Note:** The standard cost conversion tool cannot convert items with remaining quarantine orders with a status of "Started" by the conversion date. All quarantine orders relating to items set for conversion must have a status of "Ended" by the conversion date.

## Un-posted journals

In Microsoft Dynamics AX 2009, it is possible to create inventory journals of different types depending on which effect to the inventory you want. Inventory journals can hold two possible status values, Posted or Un-posted. Inventory journals and their respective journals lines were created with the purpose of affecting the inventory.

The best practice is to ensure that all inventory journal lines are either posted or deleted before the conversion is run, including items set to be converted to standard cost.

The standard cost conversion job will validate whether items set to conversion hold un-posted journal lines when the check is run. Reported issues will not affect your ability to run the standard cost conversion.

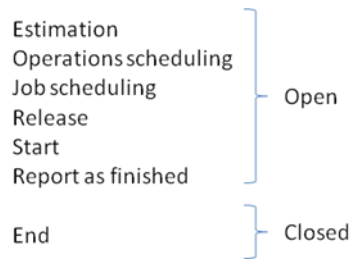
All journals lines include a date and cost, and the lines affect the inventory as of this date. The date and cost on the lines are not updated during the conversion to standard cost. The consequence of this is that the journal lines can never be posted as of the date stated on the line. The inventory has been closed and after conversion to standard cost the inventory close cannot be cancelled.

**Note:** Incomplete transfer orders on items set to be converted to standard cost will not be reported by the Check functionality in the conversion tool. The recommended practice is to go through all transfer orders to validate their current status before running the conversion.

## Handling production orders

**Important:** It is assumed in this section of the whitepaper that the hotfix described in KB article 955755 has been installed. The KB article 955755 is included in Service Pack 1 for Microsoft Dynamics AX 2009. If you have installed Service Pack 1 or greater for Microsoft Dynamics AX 2009, then you do not have to install the hotfix.

In Microsoft Dynamics AX 2009, production orders are considered open or closed depending on their current status level as outlined in the following illustration.

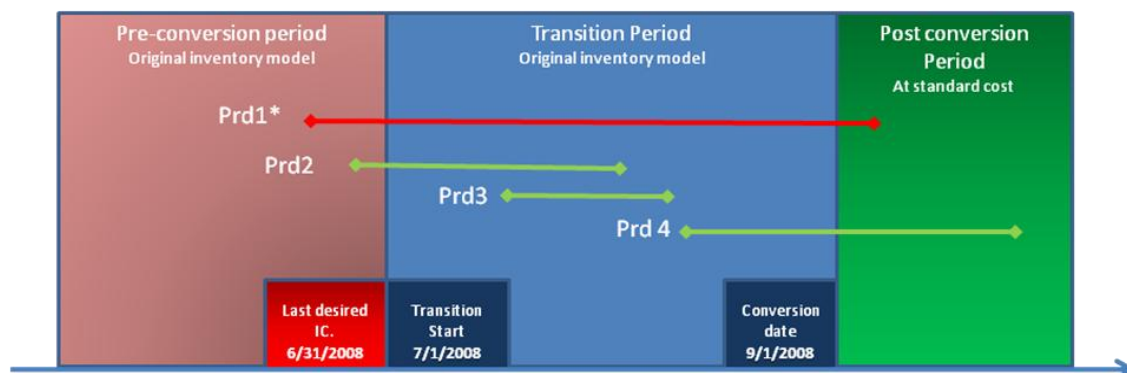


Production orders are in general converted in the same way as all other inventory transactions, such as purchase orders and sales orders.

**Note:** In the table InventCostTrans, closed production orders are converted with a reference of "Inventory revaluation." Open production orders are converted with a reference of "Work In Progress revaluation."

When converting BOM items to standard cost, four main open production order scenarios are possible:

- Prd1: Open production order, from the pre-conversion period to the post-conversion period
- Prd2: Open production order, from the pre-conversion period to transition period
- Prd3: Open production order within the transition period
- Prd4: Open production order, from the transition period to the post-conversion period



Open production orders applying to scenario Prd2, Prd3 and Prd4 are by default accepted by the conversion tool, and the BOM item will be converted to standard cost.

On open production orders equal to scenario Prd1, the conversion tool will run a validation on the specific production orders to determine whether conversion of BOM items can take place.

Conversion of items will be rejected if all of the following statements are true:

- A Production order status equals:
  - Started
  - Reported as finished
- Consumptions or "Reported as finished" orders have been recorded against the items to be converted
- These are posted at a date earlier than the transition start date

**Note:** The conversion tool performs this validation to prevent conversion if consumptions or "Reported as finished" orders have been posted in the pre-conversion period and the item uses a costing method other than standard cost. The best practice in this situation is to keep these postings, posted by current costing method by fiscal year end.

### **Limitations in converting open production orders**

Open production orders and their related production data will not be updated by the conversion tool to reflect the new standard cost roll-up.

The impact of the limitations on the system will be as follows:

- Temporarily incorrect value of the WIP (Work in progress) that results from misalignment between the production orders realized cost composition per cost group (material + labor + overhead) and the standard cost rollup per cost group
- Temporary misalignment, affecting production order reports and inquiries:
  - **Production > Reports > Balance**
  - **Production > Reports > Analysis > Cost estimates and costings**
  - **Production > Inquiries > Price calculations**

**Note:** This is a temporary situation. When the open production orders are closed, they will be updated with correct values. The above impact primarily affects environments where cost breakdown has been enabled in order to maintain standard cost per cost group.

### **Scenario: Production orders realized costs are temporarily wrong**

An open production order of a finished good that is evaluated by standard cost and that consists of a semi-finished item is not currently evaluated by standard cost. The semi-finished item is converted to standard cost. During conversion, cost breakdown is enabled on the semi-finished good.

- One unit of a semi-finished item is consumed by the production order at 1 @ USD 100.00, under the cost group "SF."

- The semi-finished item is converted to a standard cost of USD 120.00 with the following cost roll-up per cost group:
  - MAT - USD 60.00
  - LAB - USD 40.00
  - IND - USD 20.00

The result after the conversion will be:

- The inventory transactions will be properly converted and revalued to the new standard cost of USD 120.00.
- The realized cost on the production order will be updated to the new value of 1 @ USD 120.00 , but remain under the cost group "SF ," instead of being distributed according to the standard cost roll-up per cost group.
- Ending the production order will resolve the situation and compute the proper production-realized cost per cost group and generate the appropriate production variances per cost group.

### **Scenario: Indirect cost on WIP (Work in Progress) temporarily wrong**

An open production order of a finished good that is evaluated by standard cost and that consists of a semi-finished item is not currently evaluated by standard cost. The semi-finished item is converted to standard cost. The semi-finished item has an indirect cost of the type "Surcharge" set on the cost group SF.

- Indirect cost of type surcharge has been set in the costing sheet on the basis of cost groups relating to items.
  - 10% of indirect cost is contributed through SF cost group
  - 15% of indirect cost is contributed through MAT cost group
- Using the same cost of the semi-finished items in the scenario above:
  - The indirect cost recorded is 1 @ USD 100.00\*10% = USD 10.00 originating from cost group SF
  - The semi-finished item is converted to a standard cost of USD 120.00, with the following cost roll-up per cost group:
    - MAT – USD 60.00
    - LAB - USD 40.00
    - IND – USD 20.00
- After conversion of the semi-finished good:
  - The recorded indirect cost is expected to be USD 60.00 \* 15% = USD 9.00 originating from cost group MAT
  - The system will temporarily record an indirect cost of USD 120.00 \* 10 % = USD 12.00 originating from SF cost group.
- Ending the production order will resolve the situation and compute the proper production realized cost per cost group, as well as generate the appropriate production variances per cost group.

### **Mitigation to avoid open productions of type Prod1 that prevent conversion**

In Microsoft Dynamics AX 2009, to avoid having open production orders of type Prod1, you could prevent the BOM item from being converted to standard cost.

An alternative mitigation that would not interfere with Microsoft Dynamics AX 2009 would be for the Partner and Client to plan production around the Transition start date so that no larger production orders that could potentially impact the conversion plan are placed and started.

### **Correct setting of transition period end date**

The Transition period must run until all open production orders that are consumed or reported as Finished and posted before the transition start date are ended (Closed)

This solution has a low risk and requires no data correction. The tradeoff is that the end of the transition period (conversion date) cannot be specified as of a particular date.

### **Split production order**

This solution only applies if the production order has been reported as Finished. The intention is to split the production order into two production orders. The first production order is ended at the current quantity reported as finished by the fiscal year end. The second production order is either created by the system automatically (if you are using Master Planning) or manually at the remaining quantity.

This solution has a medium risk and requires some data correction. It is mostly intended for clients who:

- Have a low number of production orders of type Prod1
- Use Master Planning to create planned production orders based on demand.

**Note:** When choosing this solution, it is very important to acknowledge how consumption of resources has been posted to WIP to avoid incorrect costs on finished goods.

### **Reverse Production status**

This solution applies only if consumption has been posted on the production order. The solution can also be used if "Reported as finished" items have been posted. The intention is to offset WIP as of the fiscal year end. This solution uses an existing feature in Microsoft Dynamics AX that allows resetting status on an open production order. The production order status has to be reset until all consumption has been reversed.

This solution has a high risk and requires a great deal of data correction. All production orders must be updated with correct values in the new fiscal year

**Note:** Microsoft Dynamics AX 2009 does not include a feature that can repost these production transactions. The Partner will have to develop a solution of this type.

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