CHAPTER 7: COSTING – USABILITY

Objectives

The objectives are:

- Reverse cost of returned items per posted document line.
- Apply and unapply entries in a new application worksheet.
- Run the costing batch jobs quicker and without errors.
- Get immediate insight into costing status and setup from item cards.

Introduction

Usability of costing functionality is important to instill confidence in users that they are creating costing data correctly. Inventory Costing in Microsoft Dynamics™ NAV 5.0 introduces several improvements and new features with the common purpose of increasing the usability, resiliency, and performance of costing functionality.

In the general area of item entry application, the system now offers more intuitive and reliable functionality for cost reversal during returns and a specialized interface for manual distribution of item applications. The costing batch jobs are made more resilient to run-time failures, and performance is enhanced with filter options and entry marking. Finally, the display and logic of costing fields on the item card are improved to make them more intuitive and transparent.

This chapter provides training on all the new features within the theme of costing usability and is taught as part conceptual description and part demonstration of actual use, and exercise labs on selected functionality.

NOTE: All descriptions in the topic titled "Exact Cost Reversal" refer to sales return processing. However, the same features apply to the purchase side.
Exact Cost Reversal

When receiving returned goods, those goods must be put back in inventory at the same cost as they were sold to the customer (the same applies when users handle purchase returns, or making corrective credit memos). The reasons are to:

- Cancel the effect of the postings made to the COGS account
- Restore the items in inventory at the correct cost

Microsoft Dynamics NAV has always supported this requirement with increasing scopes of exact cost reversal functionality. However, with regard to usability, this feature area requires certain improvements that are provided with the current version.

The most critical issues and their resolutions are described in the following according to how the system behaved in earlier versions and the current version respectively.

New User Interface

In previous versions, users were able to provide exact cost reversal by selecting the appropriate item ledger entry number in the Appl.-from/to Item Entry fields in order to make a fixed item entry application between the original order line and the credit memo line in question. In addition to being cumbersome and not transparent, this process was error-prone, as users easily selected the wrong entry or no entry at all, without warnings or error messages from the program.

As an alternative to the Appl.-from/to Item Entry fields, the Copy Document function was provided as a means to select a whole document to be reversed. However, the scope and usability of this user interface was somewhat lacking. (Notice That the Copy Document function is still available in the current version – with extended scope).

In the current version, a new user interface is provided for the task of selecting one or more posted document lines for exact cost reversal. The new Get Posted Document Lines to Reverse function is available from return orders and credit memos – on both the sales side and the purchase side. The function opens the Posted Sales Document Lines window (from sales return orders and sales credit memos) for the customer in question and is useful when users need to copy one or more lines that appear in one or more posted documents.
Notice that the window provides rich information about the status of posted quantities, displaying, for example, whether any have already been returned. It also contains the **Unit Cost (LCY)** field that shows the current, potentially adjusted unit cost, and the **Reverse Unit Cost (LCY)** field that shows the original unit cost at which the item was originally sold and at which it must be reversed.

**NOTE:** Cost reversal is only supported for items. However, posted document lines of all other types (for example, Resource) are also included in the *Posted Sales Document Lines* window. The cost reversal functionality does not apply to such posted document lines – they are merely copied to the reversing document unchanged.

At the top of the *Posted Sales Document Lines* window, users can put a check mark in the **Show Reversible Lines Only** field to see only lines with quantities that have not yet been returned, or, in the case of purchase lines, have been sold or consumed. For example, if a posted sales invoice quantity has already been returned, users may not want to return that quantity on a new sales return document. Putting a check mark in the **Show Reversible Lines Only** field hides those posted document lines where the full quantity has already been returned, sold, or consumed.

**Exact Cost Reversal based on Posted Invoices**

In previous versions, exact cost reversal was based only on item ledger entries. Therefore, the Copy Document function was only used to copy posted shipments or receipts one at a time; it was not used to copy posted invoices, although that is a common business need.
This caused much trouble for users processing returns, because there is frequently a one-to-many relation between a posted document line and item ledger entries (for example, when several partial shipments are invoiced in one sales invoice). But as the reversing document was not based on posted invoices, users had to create reversing document lines for each related posted shipment in order to provide exact cost reversal.

In the current version, the exact cost reversal principle is expanded to include posted invoices and credit memos. This resolves, for example, the problem with multiple shipments in one invoice. Refer to the demonstration titled "Reverse a Sales Invoice that Contains Multiple Shipments."

Now the function provides the correct focus: on the invoice instead of on the shipment. Therefore, the correct price and discount information is immediately reversed from the invoice.

**Only Reversible Quantities Are Handled**

In previous versions, users were only able to register an exact cost reversal of the same item quantity (that is, apply it to the same original sales shipment) an endless number of times. This may cause confusing availability figures. This was possible because the program did not check if any quantities on the original sale had already been reversed.

In the current version, a new field is implemented in the item ledger entry table where the reversible quantity of an outbound item ledger is stored. The program will check during the posting of return orders that only the quantity remaining in relation to the original sales document line (Qty. Not Returned field) can be reversed. This guarantees that users do not accidentally return more than what was sold.

**Posted Document Lines with Item Tracking are Reversed**

In previous versions, item tracking numbers on posted document lines to be reversed were not carried automatically to return documents. Instead, users had to create one document line per serial/lot number, and then manually enter the outbound entry number to reverse in the Appl.-from Item Entry field on the sales return/credit memo line.

In the current version, any item tracking entries in the posted document are automatically carried to returns documents when users use the Get Posted Document Lines to Reverse function or the Copy Document function. To avoid the splitting of document lines per serial number, the exact cost reversing link is established per item tracking line.

This concludes the conceptual discussion of past and new functionality for exact cost reversal. The demonstration titled "Reverse a Sales Invoice that Contains Multiple Shipments" shows how to use the new features for selected business scenarios.
Demonstration – Reverse a Sales Invoice that Contains Multiple Shipments

**ATTENTION:** Load a clean Cronus database without changes.

This demonstrates how order processors can easily process return orders based on posted sales invoices – even when items were shipped partially. Moreover, the program makes sure that items are returned to inventory at the same cost as when they were taken out of inventory.

**Scenario:** Last week, the sales order processor sold to the Cannon Group (Customer 10000) three storage units (item 1976-W) in two separate invoices: one, on 01/27/08, for one piece and another, on 01/28/08, for two pieces that were shipped in two different shipments. Now, the customer wants to return all three items, and the order processor has agreed to take them back at no charge.

This process is slightly complex, as the order processor must create a sales return of two sales lines from two different sales invoices, and the second sales invoice has a line with two shipments behind it. The demonstration will show that when such a posted invoice line is to be reversed, the program manages exact cost reversing links to all involved outbound item ledger entries – in this case, two.

**Prepare System Setup and Transaction Data**
To prepare the data that is used in the demonstration, start by making some setup changes and post the involved transactions.

**Steps**
Start by changing the adjustment setup:

1. In the **Inventory Setup** window, set the **Automatic Cost Adjustment** field to **Always**.
2. Run the **Adjust Cost – Item Entries** batch job for all items.
3. In the **Sales & Receivables Setup** window, put a check mark in the **Exact Cost Reversing Mandatory** field.
4. Post this existing purchase order (106009):

<table>
<thead>
<tr>
<th>Posting Date</th>
<th>Item</th>
<th>Location</th>
<th>Quantity</th>
<th>Unit Cost</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/26/08</td>
<td>1976-W</td>
<td>BLUE</td>
<td>2</td>
<td>150.60</td>
<td>Receive and Invoice</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RED</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notice that the inventory increase made in step 4 uses a unit cost of 150.60.
5. Create and post this sales order:

<table>
<thead>
<tr>
<th>Posting Date</th>
<th>Item</th>
<th>Location</th>
<th>Quantity</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/27/08</td>
<td>1976-W</td>
<td>BLUE</td>
<td>1</td>
<td>Ship and Invoice</td>
</tr>
</tbody>
</table>

6. Create and post this sales order as two shipments and one invoice:

<table>
<thead>
<tr>
<th>Posting Date</th>
<th>Item</th>
<th>Location</th>
<th>Quantity</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/28/08</td>
<td>1976-W</td>
<td>BLUE</td>
<td>2</td>
<td>Ship 1 Invoice 1 Invoice 2</td>
</tr>
</tbody>
</table>

Notice that the inventory decreases made in steps 5 and 6 use a unit cost of 143.70.

Now that preliminary transactions are made, continue by processing the sales return.

**Process the Sales Return**

Continue to create and post a sales return of all three storage units shipped to the Cannon Group.

**Steps**

Start by creating the sales return order:

1. Fill in a new sales return order header for customer 10000 with posting date 02/20/08.

2. Click **FUNCTIONS → GET POSTED DOCUMENT LINES TO REVERSE**.

The Posted Sales Document Lines window opens and shows all the past sales transactions to the customer organized according to the four types of posted sales documents: shipments, invoices, return receipts, and credit memos. Figure 7–2 shows the documents by posted shipments – one line per shipment.
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Notice that the last two posted shipments represent the two partial shipment postings made to Cannon Group in step 6 of the section titled "Prepare System Setup and Transaction Data." The source document behind each posted document line is immediately available by clicking LINE → SHOW DOCUMENT (Shift+F5).

Notice also that the unit cost has been adjusted to 150.60 since the original sales, and is therefore different from the value in the Reverse Unit Cost (LCY) field (143.07). This is the adjusted unit cost at which the items were sold and at which they must also be returned to inventory.

The order processor in this scenario prefers to handle sales returns according to the posted sales invoices – not posted shipments.

3. Click Posted Invoices in the left side to view the posted sales transactions for Cannon Group by their sales invoice documents.

Figure 7-2: Posted Shipments View

Figure 7-3: Posted Invoices View
Notice that the last posted sales invoice (with a quantity of two) represents the invoicing of the two shipments made to Cannon Group in step 6 of the section titled "Prepare System Setup and Transaction Data."

By default, the **Show Reversible Lines Only** field has a check mark because the system is set up for Exact Cost Reversing Mandatory. It will have no effect in the current scenario because no quantities have been returned yet (the Qty. Returned column is empty). However, the demonstration titled "Return Only Reversible Quantity" will show the effect of this field.

Continue to carry the two invoices into the sales return order.

4. Select the last two lines by holding down the Ctrl. button as you select the lines.

5. Click OK to copy the posted sales invoice lines to the sales return order lines.

![Figure 7-4: Return Order After Getting Lines to Reverse](image)

Notice that three sales return lines are created – one for each original sales shipment to which the return line is fixed applied (indicated by the Appl.-from Item Entry field). Together with each sales return line are comment lines about the related posted shipments and/or invoices.

When this sales return order is posted, the customer will be credited 256.10 per item (in an auto-generated posted sales credit memo), and the three storage units will be added back to inventory at the original unit cost of 143.70 – fulfilling the requirement of exact cost reversing.

6. Post the sales return order (Receive and Invoice).
This completes the demonstration of how to easily process a sales return based on a sales invoice holding multiple sales shipments, and provide exact cost reversal. The next demonstration will show how the system helps users keep track of how many items are already returned.

**Demonstration – Return Only Reversible Quantity**

This demonstrates how order processors can safely process return orders without risk of reversing more items than were originally sold.

**Scenario:** Selangorian Ltd. (customer 20000), wants to return five Amsterdam lamps (item 1928-S) that they bought on 01/15/08. However, the Selangorian purchasing agent in charge of the return does not know that two of the lamps have already been returned. Therefore, in fact only three lamps remain to be returned.

**Process the First Sales Return Order of Two Lamps**

To prepare for the demonstration of the functionality that checks for reversible quantity, start by posting two of the five lamps returned by Selangorian.

**Steps**

Start by creating the sales return order:

1. Create a sales return order header for Selangorian Ltd. with a posting date of 01/20/08.
2. Click **FUNCTIONS → GET POSTED DOCUMENT LINES TO REVERSE**.
3. In the **Posted Sales Document Lines** window, select the posted shipment or invoice line (depending on your view) for five pieces of the Amsterdam lamp (item 1928-S) and then click **OK** to carry it to the sales return order.
4. In the sales return order, enter 2 in the **Return Qty. to Receive** and **Qty. to Invoice** fields. (Ignore the message about warehouse operations at location GREEN.)
5. Post the sales return order as Receive and Invoice.

This concludes the initial steps to simulate the situation that a Cronus order processor has already processed the return of two out of the five lamps that Selangorian wants to return. In the next steps of this demonstration, a Cronus order processor tries to process a return of all five lamps, although only three remain.

**Process the Second Return Order of Five (three) Lamps**

**Scenario:** Because of misunderstandings at both Cronus and Selangorian, a Cronus order processor now continues to process the return of all five lamps as requested by a purchasing agent at Selangorian Ltd.

6. Create a new sales return order header for Selangorian Ltd. with a posting date of 01/25/08.

7. Click **FUNCTIONS → GET POSTED DOCUMENT LINES TO REVERSE.**
Notice that the program keeps track of how many pieces of the posted sales invoice have been returned and how many have not.

If you are not sure about which document the line represents, click LINE → SHOW DOCUMENT (or press Shift+F5) to open the actual document.

8. Select the line representing the posted sales invoice for Amsterdam lamps to Selangorian Ltd. and then click OK.

9. In the sales return order, try to enter 5 (instead of 3) in the Quantity field or the Return Qty. to Receive field. The system displays the following warning message:

Notice that the system disallows more items to be returned to inventory than were sold to the customer on the posted sales document in question.
NOTE: This control mechanism applies regardless of the method that is used to create the cost reversing document. For example, if users create a sales return order line manually and try to enter the original item ledger entry in the Appl.- from Item Entry field, the system will perform the same check and then warn accordingly.

10. Enter 3 in the Return Qty. to Receive and Qty. to Invoice fields (Ignore the message about warehouse operations at location GREEN), and post the sales return order as Receive and Invoice.

11. Briefly open the Posted Sales Document Lines window for Selangorian Ltd. again and notice that all five items are now returned, as indicated by the different quantity fields.

12. Click the Show Reversible Lines Only field to verify that the posted sales document line for the five Amsterdam lamps disappears from the view. This document line can no longer be processed in a sales return.

This concludes the demonstration of the new functionality that helps users make sure that only the reversible quantity can be processed in returns.

To summarize the usability improvements provided for exact cost reversal in the current version: The cumbersome and error-prone user task of selecting the correct reversing item ledger entry with almost no system checks is replaced with a robust and reliable user interface that guarantees transparent and correct returns processing at all times.

The topic titled "Application Worksheet" describes and demonstrates a new tool, where skilled users can manually remove and reapply fixed item applications made, for example, with the exact cost reversal features.
Application Worksheet

When users post a transaction wherein items are moved in or out of inventory, the program creates item applications from inventory increases to inventory decreases and vice versa. These applications are created automatically according to the cost assumptions defined by the costing method (and to a degree, the sequence in which the transactions are recorded).

Automatic or manual item applications may be unwanted as they may lead to wrongly calculated unit costs. Functionality to correct item applications can therefore be very useful. The Application Worksheet Window is designed specifically for tasks involved in removing and reapplying item ledger entries. However, it is only suited for skilled users who have good understanding of costing functionality in general and item application principles in particular.

Users may have to remove an item application or reapply item ledger entries for different reasons, such as the following:

- They have forgotten to make a fixed application.
- They have made an incorrect fixed application.
- They need to return an item to which a sale has already been applied.

Refer to the demonstration titled "Remove Sales Applications to Enable a Purchase Return."

**BEST PRACTICES:** The Application Worksheet window must mainly be used for special cases when users need to make corrections to fixed applications. Whenever possible, use a document to make general reapplications as described in the topic titled "Exact Cost Reversal."

The following types of item application cannot be redistributed:

- transfers
- drop shipments
- consumption/output

The application worksheet consists of three lists and a header section for setting filters. The top list shows all item ledger entries, according to the filters that are set. When the user selects an item ledger entry, the middle list shows the item ledger entries that are currently applied to it – if any. The bottom list shows the item ledger entries that are available to apply to the selected item ledger entry.
FIGURE 7-9: APPLICATION WORKSHEET FILTERED ON ITEM 1976-W

The Application Worksheet window is opened from the Item Ledger Entries window with focus on the information of the selected item ledger entry.

Although the logic underneath is complex and sensitive, the user interaction is limited and straightforward. No fields are editable and several application rules will govern which application entries are shown and whether they can be applied.

The most typical user steps in the worksheet are, in short:

1. **Find:** In the top list, find the item ledger entry for which you want to apply or unapply a related item ledger entry. If the selected item ledger entry has been applied, its related applied item ledger entry is displayed in the middle list. If it is not applied, the bottom list will display applicable item ledger entries.

2. **Remove Application:** If the middle subform holds an applied item ledger entry (related to the one selected in the top), click the Remove Application button. The item ledger entry will then be moved to the bottom subform to indicate that it is open for application.

3. **Apply:** If the last subform holds an applied item ledger entry (related to the one selected in the top), click the Apply button. The item ledger entry will then be moved to the middle subform to indicate that it is applied.

Refer to the demonstration titled "Remove Sales Applications to Enable a Purchase Return" for more information about the tasks.
If the **Automatic Cost Adjustment** field (Inventory Setup) is set to Always, the program automatically runs the cost adjustment batch job after each item application performed in the **Application Worksheet** window. If automatic cost adjustment is not used, users must run the Adjust Cost – Item Entries batch job to make sure that all costs are up to date.

This concludes the conceptual description of the **Application Worksheet** window. The most typical user tasks involved in manually removing and creating item applications are described in this demonstration.

**Demonstration – Remove Sales Applications to Enable a Purchase Return**

**Scenario:** On 02/20/08, Cronus International Ltd. wants to return four pieces of the Innsbruck Storage Unit from location RED to the vendor, London Postmaster. The purchase return must be processed with fixed application to make sure that costs are reversed correctly. However, when Alicia, the Cronus purchasing agent, creates the purchase return order, she realizes that three of the items have been applied to sales that are already processed and she can therefore not finish the return order.

Ken, the controller, uses the application worksheet to remove the item applications on the three storage units in order to release them for new application (in the purchase return). Upon closing the application worksheet, the controller lets the program automatically restore a balanced cost flow.

The demonstration starts when the purchasing agent tries to process a purchase return for the four storage units and sees that three are already sold and can therefore not be fixed applied (cost reversed exactly).

**Steps**

Start by creating the purchase return order:

1. Create a purchase return order header to London Postmaster with a posting date of 02/20/08.
2. Click **FUNCTIONS** → **GET POSTED DOCUMENT LINES TO REVERSE**.
3. In the **Posted Purchase Document Lines** window (for London Postmaster), add the **Location Code** field to your view.
Notice in the last line that out of the four that were originally purchased into location RED, three are now applied elsewhere, leaving only one available for exact cost reversal. To demonstrate the issue, trigger the related system message by trying to carry the line to the purchase return order.

4. Select the last line and then click **OK**. Users receive the following message:

![Figure 7-11: Message and Dialog Box on Level of System Involvement](image)

Upon reading the message, the purchasing agent decides to click **No** to obtain the one piece available for reversal, and then have the controller resolve the issue with the remaining three.

**NOTE**: In a real-life situation, users can probably select Yes because they trust the program to reapply entries automatically. But in order to demonstrate manual tasks in the application worksheets, the purchasing agent selects No in this scenario.

5. Click **No**. One piece is carried to the purchase return order.
FIGURE 7-12: ONE RETURN LINE CREATED FOR THE AVAILABLE PIECE

Continue on to remove the existing sales applications.

After a quick briefing by the purchasing agent, the controller enters the Application Worksheet window to see whether he can resolve the issue.

6. In the purchase return order line, put the pointer on item 1976-W in the No. field and look up to the Item List window (F6).

7. Look up to the item ledger entries (CTRL+F5).

8. In the Item Ledger Entries window for item 1976-W, select the last line – the positive item ledger entry of four pieces at location RED.

9. Click APPLICATION → APPLICATION WORKSHEET.
The worksheet opens with focus preset on the specific item ledger entry for item 1976-W. As the pointer moves through the item ledger entries in the top subform, the other subforms display the related applied or unapplied entries that may be removed or applied.

In the current scenario, the controller can clearly see what the issue is with the three item ledger entries: they are applied to two different sales shipments posted in the end of January. He decides to remove the two applications so the three item ledger entries are made available to the purchasing agent for fixed application in the ongoing purchase return order.

10. Put the pointer on the last item ledger entry (in the top subform) and then click the Remove Application button.
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FIGURE 7-14: BOTTOM SUBFORM SHOWS THREE PIECES OPEN TO APPLICATION

Notice that the two applications are moved to the bottom subform to indicate that they are open. Notice also that the Open field has a check mark.

In the top subform, the second item ledger entry is now open (indicated by the check mark), and the Remaining Quantity field has changed from 1 to 4.

Upon closing the application worksheet, the controller wants to have the program automatically restore a balanced cost flow by applying any entries that were opened indirectly by actions he performed in the worksheet.

NOTE: Open entries that are caused by a manual action in the worksheet, such as the application removal performed in step 10 of this demonstration, are not automatically reapplied by the program. This means that the three positive item ledger entries remain open after the worksheet is closed. However, the system will check for and reapply any system-made openings upon closing the worksheet. See the message in figure 7-15.

11. Close the Application Worksheet window, and then click Yes to the following message:

FIGURE 7-15: THE SYSTEM CLOSES ANY SYSTEM-MADE OPENINGS
The controller now notifies the purchasing agent that the three pieces are available for application and that she can continue with the purchase return.

Continue on to process the purchase return.

The purchasing agent tries again to get from the posted purchase document the three pieces of the storage unit for exact cost reversal.

12. Go back to the purchase return order to London Postmaster for four Innsbruck storage units (it contains one return line created in step 5).

13. Click **FUNCTIONS → GET POSTED DOCUMENT LINES TO REVERSE** and select the last posted purchase document line. (Notice that the **Remaining Quantity** field now says 4 and the **Applied Quantity** field says 0.)

14. Click **OK** to carry the line to the purchase return order. (Notice that the system message about applied entries is not displayed this time.)

A new set of purchase return lines for four pieces are now inserted in the order under the existing set of lines for one piece. The purchasing agent must decrease the number by one – either by deleting the first set of return lines or by changing 4 to 3 in the second set of return lines.

15. In the purchase return order, delete the first set of return lines and post the order as Ship and Invoice (remember to enter a vendor credit memo number).

This concludes the description and demonstration of the Application Worksheet window – a highly specialized tool that is designed for super user tasks involved in removing and reapplying item ledger entries.

### Improved Usability and Performance of Costing Batch Jobs

Among Microsoft Dynamics NAV users of costing functionality, the term costing batch jobs is a slang reference to the following two batch jobs:

- **Adjust Cost – Item Entries**
- **Post Inventory Cost to G/L**

Whether used as periodic processes or at transaction time, these batch jobs are a necessary process that provides adjusted and updated cost values in the system. In most Microsoft Dynamics NAV installations, these batch jobs are time-consuming, and the current version therefore includes several improvements aimed at improving their performance and usability.

### Post Inventory Cost to G/L

In previous versions, it was possible that the Post Inventory Cost to G/L batch job failed in mid run because of, for example, dimension setup issues. This meant that users spent much time, typically after working hours, finding and resolving
failure errors one by one until the batch job finished. The most common failure reasons were:

- Data setup had changed since the posting of entries to be processed (missing or wrong dimension value being the main setup issue).
- Setup of posting groups was insufficient or wrong.

In addition to potential failure, the performance of the Post Inventory Cost to G/L batch job was considered poor in some circumstances.

In the current version, several usability improvements are introduced to resolve the issue of mid-run failure, and efforts are made to speed up the run time. Resiliency and performance improvements center on preventive measures described in the following.

**Preventive Setup Check during Transaction Posting**

When users post item transactions, the system checks the required posting setup (mainly regarding dimensions) and therefore prevents an error from occurring in the batch job later. Error messages about dimension setup issues are merely informational. The transaction will post successfully if the warning is ignored.

*NOTE: The preventive setup checks do not apply when the system is set up to use automatic cost posting. The reason is that item ledger entries are posted to G/L at the same time as the transaction posting and potential errors can be identified immediately.*

**Test Report**

A test version of the Post Inventory Cost to G/L batch job is provided to help users find and resolve errors before users run the actual G/L posting batch job.

**Ignored Dimension Errors**

The Post Inventory Cost to G/L batch job will override any dimension setup errors. The rationale is to that most errors will be eliminated by the preventive setup check, and that there is little probability that dimension setup changes are made in the time interval between the creation of value entries and the posting of those entries to G/L. Moreover, the principle of the preventive setup check is informational – not exclusive.

**Only Changed Entries are posted to G/L**

To decrease run time, the posting routine uses improved entry marking to only skim through entries that actually need posting to G/L.

**Options in the Post Inventory Cost to G/L – Test Batch Job**

The request form of the new Post Inventory Cost to G/L – Test batch job offers some additional option fields that reflect the resiliency improvements.
FIGURE 7-16: OPTIONS FOR THE TEST REPORT

**Posting Method** field: The two posting methods function as they do on the main batch job. However, if a user runs the test report with the Per Posting Group option, and the program encounters an error, it is difficult to determine in which entry the errors occur, because the report will only show the first entry that causes an error in the posting group. There may be more incorrect entries in the posting group. Therefore, it is best to run the test report with the Per Entry option.

**Show Dimensions** field: Put a check mark in this field to print the dimensions for each entry or posting group in the report.

**Show Only Warnings** field: Put a check mark in this field to show only the entries that produce errors. If you do not put a check mark in this field, the report will show all entries that can be posted to the general ledger.

**Adjust Cost – Item Entries**
In previous versions (especially before 4.0 SP1), the performance of the adjustment batch job was considered poor in some circumstances. In large customer installations, run times can exceed one night. Despite the extensive optimization efforts in SP1, there was still a need to improve the batch job's flexibility in order to obtain better performance. In addition, if the system was set up with automatic cost posting (no preventive setup checks), it was possible for the cost adjustment batch job to be interrupted for reasons pertaining to the Post Inventory Cost to G/L batch job.

In the current version, usability improvements are introduced to make the Adjust Cost – Item Entries batch job faster and more resilient to setup errors. The most significant improvements are as follows:

- Ability to run the batch job per item or per item category
- Option not to post adjusted value entries to G/L immediately
The ability to filter on an item or item category improves flexibility and performance as it delimits what is included in the batch job.

If the system is set up to use automatic cost posting, the **Post to G/L** check box is available in the batch job request form (see figure 7-17). Users can then select whether value entries created during the adjustment batch job must be posted automatically to G/L. By default, the option is set to true (if using automatic cost posting). But users can remove the check mark to gain performance at the expense of cost updates in G/L.

![Adjust Cost - Item Entries](image)

**FIGURE 7-17: OPTIONS FOR THE ADJUSTMENT BATCH JOB**

This concludes the conceptual description of usability improvements in the costing batch jobs. Here is a short demonstration of the preventive setup check that is performed before the posting of item transactions.

### Demonstration – Prevent a Transaction with Dimension Error

This demonstrates how the system prevents batch job failure because of dimension errors by requiring a vendor dimension value before it enables the posting of a purchase order to that vendor.

**Scenario:** The accounting department has decided that all new postings to G/L account 2130 (Raw Materials) must be assigned the dimension value Department = Production. The system warns that no item transactions can be posted without that dimension value, but not all order processors are aware of the change. A purchasing agent tries to post a purchase order and is reminded of the new rule.
Steps
To indicate that the new rule only applies to G/L postings made on the day of the change and forward, start by posting all outstanding inventory costs to G/L:

1. Click FINANCIAL MANAGEMENT → INVENTORY → COSTING → POST → POST INVT. COST TO G/L and run the batch job without filters and with default options (remember to enter a document number).

Before the new rule is implemented and communicated to users, a purchasing agent posts an existing purchase order and therefore creates new unposted costs.

2. Open existing purchase order 106014 and post it (Receive and Invoice).

Now assign the dimension value to G/L account 2130 in order to implement the new rule on all future inventory costs going to this G/L account.

3. Open the chart of accounts and scroll to account 2130, Raw Materials.
4. Click ACCOUNT → CARD (Shift +F5) to open the G/L account card.
5. Click ACCOUNT → DIMENSIONS (Shift +Ctrl+D) to open the Default Dimension window.
6. Enter Department as dimension code, Production as dimension value, and make value posting mandatory.

Now that the Raw Materials account requires a dimension value, continue to investigate how many open orders destined for that account are affected. Use the Post Inventory Cost to G/L – Test report for this.

7. Click FINANCIAL MANAGEMENT → INVENTORY → COSTING → POST → POST INVT. COST TO G/L - TEST.
8. Define a test report without filters and with these options:

<table>
<thead>
<tr>
<th>Posting Method</th>
<th>Per Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Show Dimensions</td>
<td>Yes</td>
</tr>
<tr>
<td>Show Only Warnings</td>
<td>Yes</td>
</tr>
</tbody>
</table>

9. Preview the report.

![Figure 7-19: Test Report Saying Transaction Requires a Dimension](image)

Notice that the purchase order for item 70060 posted in step 2 of this demonstration does not contain the required dimension value. The report warns about the errors that can restrict the Post Inventory Cost to G/L batch job from completing if the listed transactions are posted. For each order, details are provided about its current dimension setup, as this is the most common reason for error.

The value entries of this particular posted receipt will have to enter G/L account 2130 with insufficient dimension values. Continue to test whether the preventive setup checks work.

10. Create a new purchase order for item 70060, Mounting, to any vendor on work date (remember a vendor invoice number).

11. Try to post (Receive and Invoice).

A message states that dimension code value is required for G/L account 2130. With this error message, the system is preventing the posting of value entries that may later cause failure in the Post Inventory Cost to G/L batch job.

Now continue to assign the required dimension value in order to post acceptable dimension information into the inventory ledger so that it can later be successfully posted to G/L.
12. In the purchase order, open the Invoicing tab and enter PROD in the Department Code field.

13. Post the order (Receive and Invoice). Posting is successful.

Costs from this particular purchase order can now be posted successfully to G/L without risk of blocking the post to G/L batch job.

This concludes the descriptions and demonstration of usability improvements made to the costing batch jobs to provide faster and more resilient cost posting.

**Costing Setup and Monitoring on Item Cards**

In previous versions, item cards included several different costing-related fields because the generic solution must aim at many environments. To end-users, however, only some of the costing fields relate to their particular costing implementation, and this makes it hard to know which fields to use, and when.

In the current version, the following usability improvements are introduced on the item card:

- The cost value fields, **Standard Cost** and **Unit Cost**, indicate dynamically with their display mode (active/shaded) whether they are applicable according to the selected costing method.
- The **Cost is Posted to G/L** status field is added.
- The **Average Cost** field is removed (adopted by the **Unit Cost** field).
- From the **Unit Cost** field is a lookup to the Average Cost Calc. Overview window that shows unit cost calculations over time (mainly relevant for average cost items). Refer to the chapter titled "Transparency."

The most significant change is probably the display mode feature. This makes it much easier for end-users to determine which fields relate to their particular costing method – as illustrated in figures 7-20, 7.-21, and 7-22.
Standard costing method

Notice that because the costing method is Standard, only the Standard Cost field is active. Note also that for item 1900, costs are not adjusted since the last transaction. However, they have been posted to G/L.

**NOTE:** Only the Standard costing method uses the Standard Cost field. All other costing methods share the Unit Cost field (see figure 7-21).

FIFO/LIFO/Specific/Average costing methods

**FIGURE 7-20: ITEM CARD FOR STANDARD COSTING METHOD**

**FIGURE 7-21: ITEM CARD FOR ALL EXCEPT STANDARD COSTING METHOD**
Notice that because the costing method is FIFO, only the **Unit Cost** field is active. This is also the case for LIFO, Specific, and Average costing methods. The two status fields indicate that costs for Item 70040 are both adjusted and posted to G/L.

**Average costing method**

![Figure 7-22: Unit Cost Field with Lookup to Average Cost Dynamics](image)

As described in more detail in the chapter titled "Transparency," users can look up from the **Unit Cost** field to view the historic cost flow that results in the current average cost.

This concludes the description of usability improvements made to costing fields on the item card.
Conclusion

Microsoft Dynamics NAV 5.0 contains valuable features and improvements that enhance the usability, resiliency, and performance of selected costing functionality. In the general area of item applications, the current version introduces more intuitive and reliable functionality for cost reversal during returns and a specialized interface for managing item applications. The costing batch jobs are made more resilient to run-time failures and performance is enhanced with filter options and entry marking. Finally, the display and logic of costing fields on the item card are improved to make them more intuitive and transparent.

Usability of costing functionality is important to instill confidence in users that they are creating costing data correctly.