Microsoft Dynamics® AX

Microsoft Dynamics Inventory Reconciliation and Reporting

White Paper

April 2010

Microsoft Dynamics®

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MICROSOFT DYNAMICS INVENTORY RECONCILIATION AND REPORTING

Introduction

For some time users have requested features in Microsoft Dynamics AX for the following purposes:

- Reporting of inventory values
- Reconciliation between General ledger and Inventory
- Visibility of inventory movements

The new Inventory value report framework combined with the new report Potential conflicts - Inventory and General ledger, make a set of reports available that helps to provide visibility and understanding of inventory value.

Reconciliation process

By the end of a fiscal period (normally a couple of days into the next fiscal period unless it is a fiscal year-end) the balances from sub-ledgers are reconciled with General ledger values. This is to ensure that the sub-ledger and General ledger are synchronized.

In case there are discrepancies between sub-ledger and General ledger, it is important to identify the reason for the discrepancies so that suitable actions to correct the issue can be taken.

Inventory value report framework

With the Inventory value report framework you can:

- Create a report configuration that is tailored for a specific purpose.
- Save a report configuration with a unique ID so that it can be used multiple times.
- Add ranges to filter data when you run a report.

In the following, you get an overview of the options available to create report configurations that display inventory value in different ways.

Create an inventory value report

Follow this procedure to create an inventory value report based on the inventory value report framework.

1. Click **Inventory management** > **Setup** > **Inventory value report** to open the report framework.
2. Specify a unique ID and a name for the report in the **ID** and **Name** fields on the **Overview** tab.
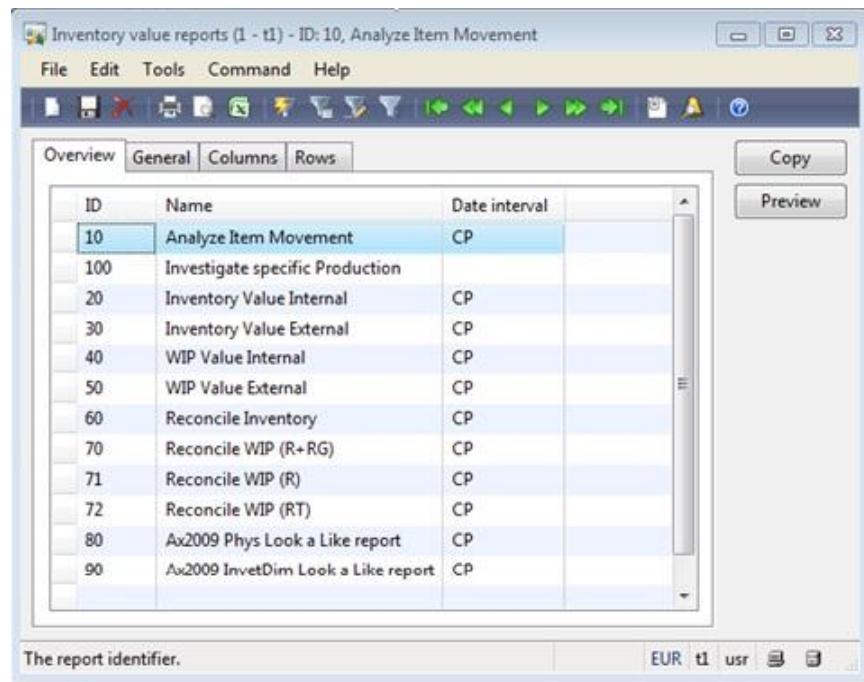
3. Enter a date interval code in the **Date interval** field. If you provide a date interval code, the **From date** and the **To date** information in the **Inventory value report** dialog box is automatically based on the system date when you run the report. For more information, see Run an inventory value report.

4. Click the **Copy** button to copy an ID and the related report configuration to a new ID.

5. Click the **Columns** tab, and select the check boxes under **Financial position** to determine what financial position or financial positions should be included in the report.

   Note: Financial positions correspond to financial representation in General ledger.

Header columns and sub-columns in an inventory value report

When you run an inventory value report, the financial positions represent header columns and these header columns can contain a set of sub-columns of the following type:

- Financial quantity
- Financial amount
- Physical quantity posted
- Physical amount posted

Follow the guidelines under Inventory value report variations to see how to display sub-column information in inventory value reports.

   Note: The financial positions COGS and Profit and Loss only contain sub-columns of the type Financial (quantity and amount). The financial positions WIP and Deferred COGS only contain sub-columns of the type Physical (quantity posted and amount posted).

4
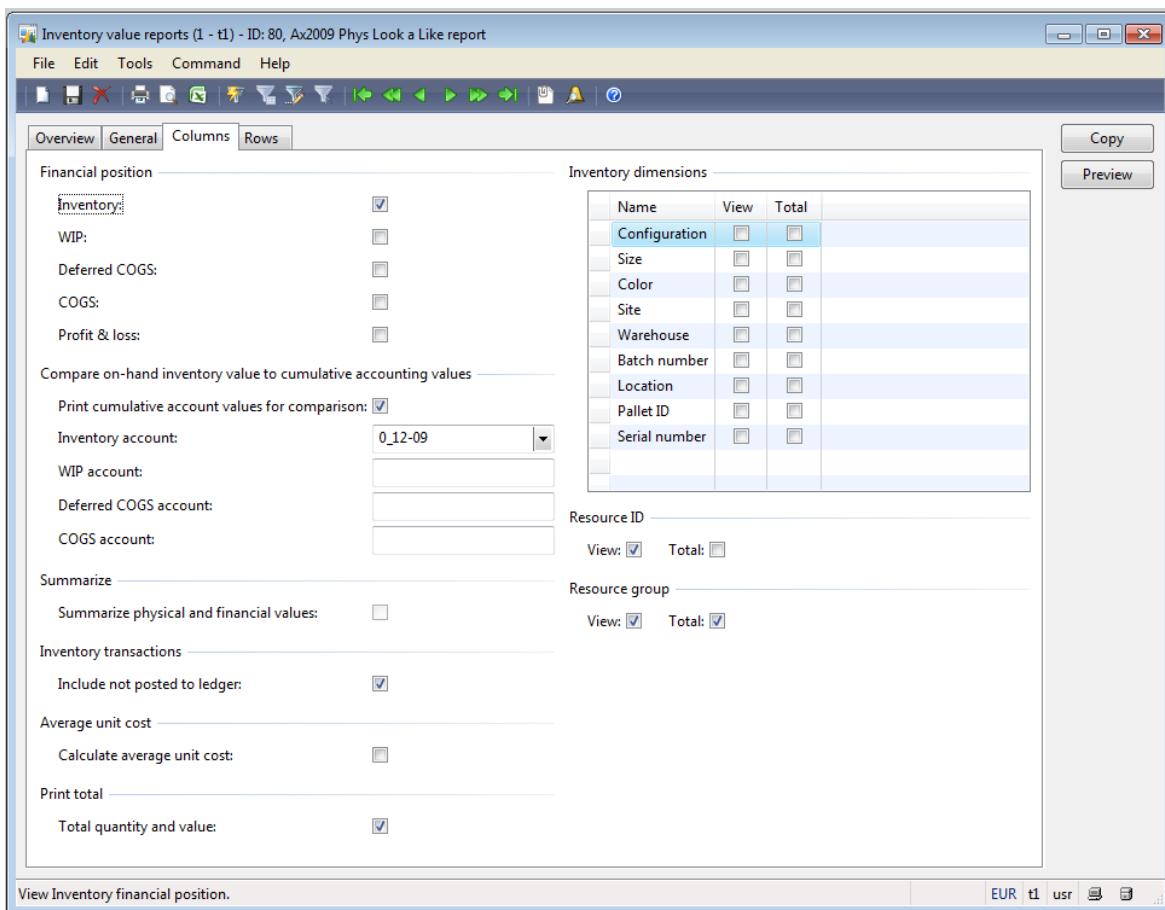
6. Click the **Preview** button to preview the current report configuration. The preview includes sample data.

Example: The Inventory financial position

The following illustration shows a report where the financial position **Inventory** is selected.

The Light Company					Page 1
Inventory value report					15-04-2010
					21:56:11

From date : 01-04-2010   To date : 30-04-2010

Material

Resource	INV: Financial qty	INV: Financial amount	INV: Physical qty posted	INV: Physical amount posted
71	6,00	120,00	-2,00	-40,00
Material Total	6,00	120,00	-2,00	-40,00
Grand Total		120,00		-40,00

Example: All financial positions

The following illustration shows inventory movements for a specific item within a fiscal period with all financial positions selected.

Tip: You can use a report with all financial positions selected to view inventory movements within a given period in order to, for example, identify any drastic changes in the on-hand inventory within a fiscal period.

Resource	Date	Voucher	Number	Reference category	INV. Qty	INV. Amount	WIP. Qty	WIP. Amount	Def. COGS. Qty	Def. COGS. Amount	COGS qty	COGS. Amount	P&L. Qty	P&L. Amount
71	01-04-2010			Beginning balance	10,00	200,00								
71	09-04-2010	00006_041	00028_036	Sales order	-2,00	-40,00			2,00	40,00				
71	15-04-2010	00012_042	00029_036	Sales order	-3,00	-60,00					3,00	60,00		
71	30-04-2010	8056_062	000052_061	Profit/Loss	-1,00	-20,00							1,00	20,00
Material Total					4,00	80,00			2,00	40,00	3,00	60,00	1,00	20,00
Grand Total						80,00				40,00		60,00		20,00

The Light Company — Inventory value report — From date : 01-04-2010 To date : 30-04-2010 — Material — Page 1, 15-04-2010, 21:40:35

Inventory value report variations

The following sections describe how you apply the options in the **Inventory value report** form in order to display inventory value in different ways.

Display on-hand inventory value compared to cumulative account values

1. Follow the steps to create an inventory value report. For more information, see Create an inventory value report.
2. Click the **Columns** tab in the **Inventory value reports** form.
3. Select the **Print cumulative account values for comparison** check box.
4. Select a ledger account for each financial position in the fields **Inventory account**, **WIP account**, **Deferred COGS account**, and **COGS account**.

   Notes: The ledger account that you select is used for reconciliation. If you select a ledger account of the account type Total, the report displays the balance per ledger account for the Total account.

   COGS is a profit and loss account and a cumulative balance does not exist for this type of account. In order to reconcile COGS, you must enter a date in the **From date** field in the **Inventory value report** form when you run the report. For more information, see Run the inventory value report.

   Reconciliation between financial positions and General ledger can only take place at the level where a General ledger integration has been configured such as via an item group.

Example: The Inventory financial position and reconciliation

The following illustration shows balances after reconciliation between inventory and general ledger with the financial position **Inventory** selected.

Inventory value report

From date : 01-04-2010   To date : 30-04-2010

Material

Resource	Resource group	INV: Qty	INV: Amount	Avg. unit cost
H	FG	13,00	9.178,00	706,00
Resource group FG Total		13,00	9.178,00	
A	Raw	984,00	39.360,00	40,00
C	Raw	985,00	19.700,00	20,00
D	Raw	285,00	142.500,00	500,00
E	Raw	100,00	3.000,00	30,00
Resource group Raw Total		2.354,00	204.560,00	
Material Total		2.367,00	213.738,00	
Grand Total			213.738,00	

Inventory

Ledger account	Account name	Amount	Percent
0 12-00	Raw-Materials	204.560,00	
0 12-01	Finish Goods	9.178,00	
0 12-09	Total	213.738,00	
	Discrepancy	0,00	

Display totals of physical and financial values

1. Follow the steps to create an inventory value report. For more information, see Create an inventory value report.

2. Click the **Columns** tab in the **Inventory value reports** form.

3. Select the check box **Summarize physical and financial values** to display the sum of physical and financial values in Total columns per financial position.

Example: The Inventory financial position and Summarize physical and financial values

The following illustration shows a report where totals of financial quantity and physical quantity posted is summed up in the Total column Qty, and totals of the financial amount and physical amount posted is summed up in the Total column Amount.

The report is configured with the financial position **Inventory** selected.

Inventory value report

From date : 01-04-2010   To date : 30-04-2010

Material

Resource	INV: Qty	INV: Amount
71	4,00	80,00
Material Total	4,00	80,00
Grand Total		80,00

Display physical transactions not posted to ledger

1. Follow the steps to create an inventory value report. For more information, see [Create an inventory value report](#).

2. Click the **Columns** tab in the **Inventory value reports** form.

3. Select the check box **Include not posted to ledger** to add two additional sub-columns to the financial positions Inventory, WIP, and Deferred COGS:

   - Physical qty not posted
   - Physical amount not posted

   Notes: The sub-columns Physical qty not posted and Physical amount not posted only contain values if, due to a parameter setting, physical inventory transactions are not posted to General ledger.

   If both the **Summarize physical and financial values** and the **Include not posted to ledger** check boxes are selected, the values of the sub-columns Physical qty not posted and Physical amount not posted will be included in the Total columns.

Example: The Inventory financial position and Include physical not posted to ledger

The following illustration shows a report where the **Include not posted to ledger** check box is selected.

The report is configured with the financial position **Inventory** selected.

Resource	INV: Financial qty	INV: Financial amount	INV: Physical qty posted	INV: Physical amount posted	INV: Physical qty not posted	INV: Physical amount not posted
71	6,00	120,00	-2,00	-40,00		
Material Total	6,00	120,00	-2,00	-40,00		
Grand Total		120,00		-40,00		

Display the average unit cost

1. Follow the steps to create an inventory value report.

2. Click the **Columns** tab in the **Inventory value reports** form.

3. Select the **Calculate average unit cost** to add a sub-column to the **Inventory** financial position that displays the average unit cost.

   Notes: If you select both the **Calculate average unit cost** and the **Include not posted to ledger** check boxes, the values of the Physical qty not posted and Physical amount not posted sub-columns will be included in the average unit cost.

   The check box **Include not posted to ledger** is not selected in the following example.

Example: The Inventory financial position and Calculate average unit cost

The following illustration shows a report where the average unit cost is show in the sub-column Avg. unit cost.

The report is configured with the financial position **Inventory** selected.

Inventory value report

From date : 01-04-2010   To date : 30-04-2010

Material

Resource	INV: Financial qty	INV: Financial amount	INV: Physical qty posted	INV: Physical amount posted	Avg. unit cost
71	6,00	120,00	-2,00	-40,00	20,00
Material Total	6,00	120,00	-2,00	-40,00	
Grand Total		120,00		-40,00	

Display total quantity and amount

1. Follow the steps to create an inventory value report. For more information, see Create an inventory value report.

2. Click the **Columns** tab in the **Inventory value reports** form.

3. Select the check box **Print total quantity and value** to add two sub-columns, Qty and Amount, to display the total quantity and amount for the financial positions **Inventory**, **WIP**, and **Deferred COGS**.

4.

Example: The Inventory financial position and Print total quantity and value

The following illustration shows a report where the total quantity and amount for the financial position **Inventory** is displayed in the two sub-columns Qty and Amount.

The Light Company

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16-04-2010
00:37:25

Inventory value report

From date : 01-04-2010   To date : 30-04-2010

Material

Resource	INV: Financial qty	INV: Financial amount	INV: Physical qty posted	INV: Physical amount posted	INV: Qty	INV: Amount
71	6,00	120,00	-2,00	-40,00	4,00	80,00
Material Total	6,00	120,00	-2,00	-40,00	4,00	80,00
Grand Total		120,00		-40,00		80,00

Display the resource ID

1. Follow the steps to create an inventory value report. For more information, see Create an inventory value report.

2. Click the **Columns** tab in the **Inventory value reports** form.

3. Select the **View** check box in the **Resource ID** group to add a resource column. With the Resource column you can verify that a value is displayed for each resource ID.

   Note: The information in the Resource column of the inventory value report is based on a combination of ItemID, WorkcenterID, and CodeID.

4. Select the **Total** check box in the **Resource ID** group to display a Total line for each resource ID.

Resource ID
Item A
Item B
WorkCenter A
WorkCenter B
Code A
Code B

ItemTable
Item A
Item B

WrkCtrTable
WorkCenter A
WorkCenter B

CostSheetNodeTable
Code A
Code B
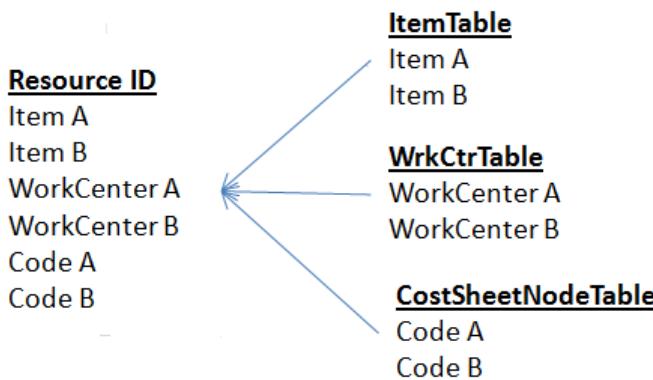
Example: The Inventory financial position and Resource ID

The following illustration shows an inventory value report with the following configuration applied:

- The financial position **Inventory** is selected.

- The **View** and the **Total** check boxes under **Resource ID** are selected.

Inventory value report

From date : 01-04-2010   To date : 30-04-2010

Material

Resource	INV: Financial qty	INV: Financial amount	INV: Physical qty posted	INV: Physical amount posted	INV: Qty	INV: Amount
71	6,00	120,00	-2,00	-40,00	4,00	80,00
Resource 71 Total	6,00	120,00	-2,00	-40,00	4,00	80,00
Material Total	6,00	120,00	-2,00	-40,00	4,00	80,00
Grand Total		120,00		-40,00		80,00

Example: The Inventory financial position, Resource ID, and dimensions

With the Total option you can display the total value of resources by dimension if the report includes inventory dimension columns. The following illustration shows an inventory value report with the following configuration applied:

- The financial position **Inventory** is selected.
- The **View** and the **Total** check boxes under **Resource ID** are selected.
- The **View** check box under **Site** is selected.

Inventory value report

From date : 01-05-2010   To date : 31-05-2010

Material

| Resource	Site	INV: Financial qty	INV: Financial amount	INV: Physical qty posted	INV: Physical amount posted	INV: Qty	INV: Amount
70	S1	1,00	40,00			1,00	40,00
70	S2	1,00	50,00			1,00	50,00
Resource 70 Total		2,00	90,00			2,00	90,00
Material Total		2,00	90,00			2,00	90,00
Grand Total			90,00				90,00

Note: The Total option enables you to create aggregated totals of segregated levels (financial inventory dimensions).

Display the resource group

1. Follow the steps to create an inventory value report. For more information, see Create an inventory value report.

2. Click the **Columns** tab in the **Inventory value reports** form.

3. Select the **View** check box in the **Resource group** group to add a Resource group column. With the Resource group column you can verify that a value is displayed for each resource group.

   Note: The information in the Resource column of the inventory value report is based on a combination of ItemGroup, WorkcenterGroup, and CostGroup (CostGroupType = Indirect).

4. Select the **Total** check box in the **Resource group** group to display a Total line for each resource group.
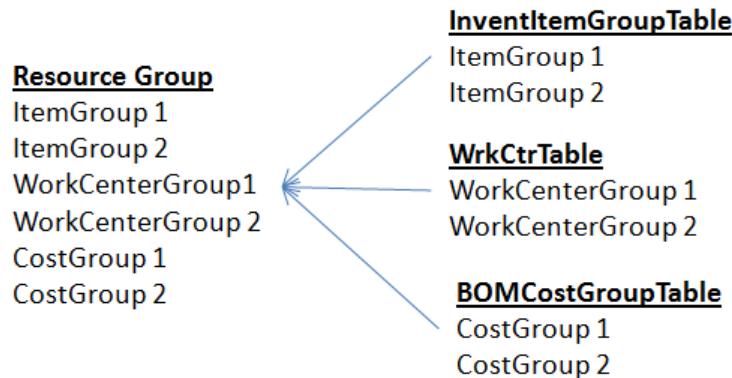
Example: The Inventory financial position, Resource ID, and Resource group

The following illustration shows a report with the following configuration applied:

- The **Inventory** financial position is selected.
- The **View** check box in the **Resource ID** group is selected.
- The **View** check box in the **Resource group** is not selected.
- The **Total** check box in the **Resource group** group is selected.

```
The Light Company                                                    Page 1
                                                                 16-04-2010
Inventory value report                                              13:12:49

From date : 01-04-2010    To date : 30-04-2010

Material

Resource                    INV: Qty              INV: Amount
 A                              3,00                    30,00
 C                             16,00                   670,00
 D                             -1,00                   -10,00
 63                            27,00                   464,59
 65                             1,00                   300,00
 66
 67                            10,00                   100,00
 70                             1,00                    20,00
 71                             4,00                    80,00
 72
Resource group Raw Total       61,00                 1.654,59

Material Total                 61,00                 1.654,59

Grand Total                                          1.654,59
```

Example: The Inventory financial position and Resource group

The following illustration shows a report with the following configuration applied:

- The **Inventory** financial position is selected.
- The **View** check box in the **Resource group** group is selected.
- The **Total** check box in the **Resource group** group is not selected.

```
The Light Company                                                    Page 1
                                                                 19-04-2010
Inventory value report                                              13:42:08

From date : 01-04-2010    To date : 30-04-2010

Material

Resource group            INV: Qty              INV: Amount
FG                            2,00                   248,00
Lamps                        8,00                   691,00
Raw                         61,00                 1.654,59
Material Total              71,00                 2.593,59

Grand Total                                       2.593,59
```

Display the resource type

1. Follow the steps to create an inventory value report. For more information, see Create an inventory value report.

2. Click the **Rows** tab in the **Inventory value reports** form.

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3. Select the **Materials**, **Labor**, and **Indirect** check boxes to include these resource types as separate sub-sections of the WIP (Work In Process).

   Note: Material is a default resource type because materials must be included in all report configurations in order to create a reliable output.
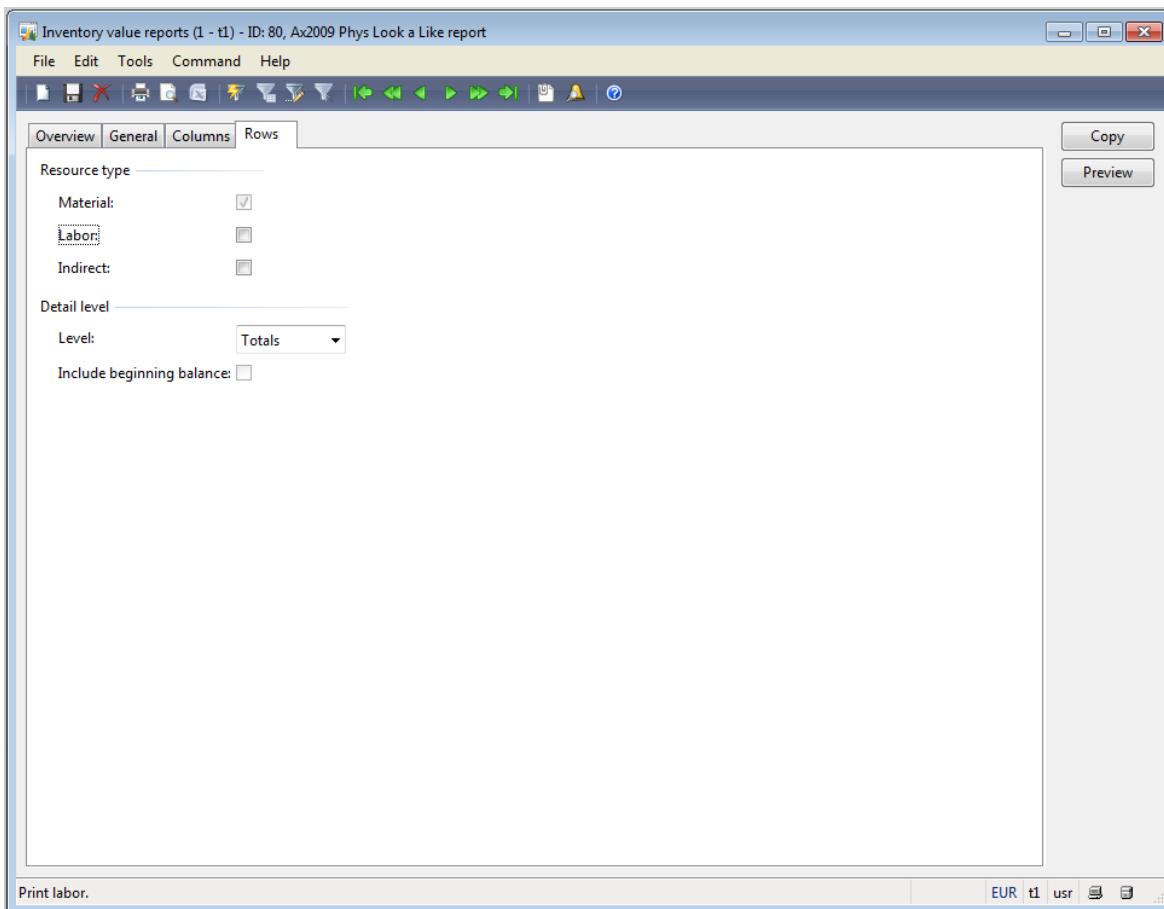
Example: The Inventory and WIP financial positions, Resource ID, Resource group, and Resource type

The following illustration shows a report with the following configuration applied:

- The resource types **Material**, **Labor** and **Indirect** are selected.
- The **Inventory** and the **WIP** financial positions are selected.
- The check box **Summarize physical and financial values** is selected.

Inventory value report

From date : 01-04-2010   To date : 30-04-2010

Material

Resource	Site	INV: Qty	INV: Amount	WIP: Qty	WIP: Amount
A 3	S1	6,00	375,00	-6,00	-375,00
Resource group Lamps Total		6,00	375,00	-6,00	-375,00
A 1	S1	980,00	9.800,00	20,00	200,00
A 2	S1	3.990,00	55.860,00	10,00	140,00
Resource group Parts Total		4.970,00	65.660,00	30,00	340,00
Material Total		4.976,00	66.035,00	24,00	-35,00

Labor

1					25,00
Resource group WC1 Total					25,00
2					60,00
Resource group WC2 Total					60,00
3					140,00
Resource group WC3 Total					140,00
Labor Total					225,00

Indirect cost

Rate 1					5,00
Rate 2					15,00
Rate 3					40,00
Resource group OVH1 Total					60,00
Indirect cost Total					60,00
Grand Total			66.035,00		250,00

Inventory

Ledger account	Account name	Amount	Percent
T001	Parts	65.660,00	
T002	Lamps	375,00	
T009	Total	66.035,00	
	Discrepancy	0,00	
WIP			
T011	WIP Material	-35,00	
T012	WIP Labor	225,00	
T013	WIP Overhead	60,00	
T019	Total	250,00	
	Discrepancy	0,00	

Set a detail level

1. Follow the steps to create an inventory value report. For more information, see Create an inventory value report.

2. Click the **Rows** tab in the **Inventory value reports** form.

3. Select the level at which the data should be presented in the **Level** field. You can select the following options:

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- Transaction: All transactions for the period interval that you specify are displayed per line in the report.

Note: If **Transaction** is selected in the **Level** field, the **From date** in the **Inventory value report** dialog box defines the start of the period of the transactions in the report.

- Total: All transactions for the period interval specified will be displayed summarized in the report

Note: If **Total** is selected in the **Level** field, a date in the **From date** field is mandatory for the financial positions COGS and Profit and Loss.

4. Select the **Include beginning balance** check box to specify a beginning balance on the financial positions Inventory, WIP, and Deferred COGS.

   Note: The **Include beginning balance** check box is only available, if you have selected **Transaction** in the **Level** field.

## Run an inventory value report

Follow this procedure to run the inventory value report.

1. Click **Inventory management** > **Reports** > **Status** > **Inventory value** > **Inventory value report**.
2. Select the report you want to run in the **Identification** field.
3. Verify the date in the **From date** and **To date** fields. The date interval is inherited from the report ID. If you change the ID before you run the report, the date interval information is updated with the information of the new report ID and the current date.

   Notes: If you leave the **From date** field empty, the date is automatically set to the same date as the To date.

   The **From date** field serves multiple purposes all depending on the report configuration.

   The **To date** defines the date of the end balance.
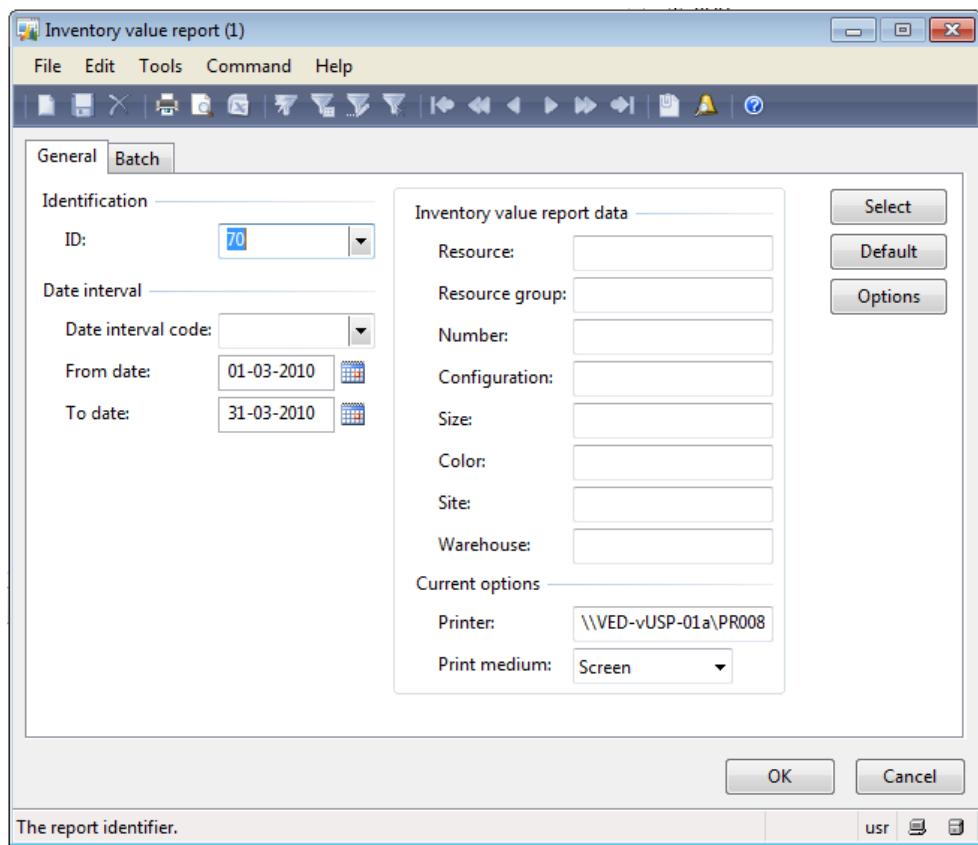
> **Note:** Date interval codes are defined under in General ledger in the Date intervals form under **Setup** > **Periods**. The benefit of date interval codes is that you do not have to change dates manually before you run the report.

Performance

If you run the Inventory value report in batch mode, the report uses the Microsoft Dynamics AX2009 batch framework.

The inventory value report allows parallelization also known as multi-threading on all the resource types:

- Material:
    - Resource = Items
- Labor:
    - Resource = WorkCenters
- Indirect cost:
    - Resource =Code

For this reason, system administrators can to add more hardware to enhance the performance of the report.

MICROSOFT DYNAMICS INVENTORY RECONCILIATION AND REPORTING
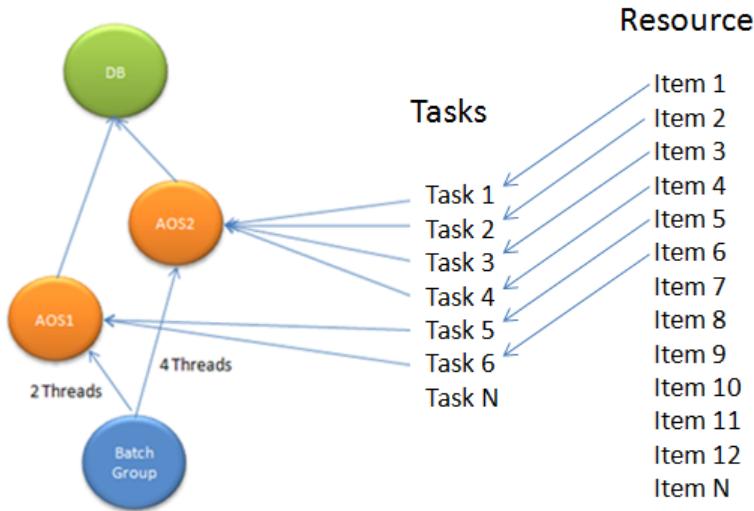
Note: Use the **Print archive** option under **Send to** in the **Print** form to print the report to screen or paper when you run the report in batch mode. If you select **Screen**, the report will appear on the screen of the batch server and not at the current client.

View potential conflicts between Inventory and General ledger

Follow this procedure to run the Potential conflicts - Inventory and General ledger report. The report validates if transactions from Inventory and General ledger agree with the parameter settings in Accounts payable, Accounts receivable, Production, and Inventory. When you run the report, you get a list of any transactions that violate one or more rules. For each violation, a recommendation for a corrective action is printed.

1. Click **Inventory management** > **Reports** > **Status** > **Inventory value** > **Potential conflicts-Inventory and General ledger**.

2. Enter a date interval code in the **Date interval code** field. When you enter a date interval code, the **From date** and **To date** fields are updated based on the report ID and the current session date. The From date and To date fields define the beginning and the end date of the report.

   Note: Date interval codes are defined under in General ledger in the **Date intervals** form under **Setup** > **Periods**. The benefit of date interval codes is that you do not have to change dates manually before you run the report.

3. Select an account in the **Total inventory account** field. The account that you select represents Inventory in General ledger and it is used in multiple validations.

   Tip: You can also select a sub-account of the type Total in the **Total inventory account** field.

   Select the check box **Exclude physical to ledger** to exclude conflicts caused by transactions that are not posted physically to ledger. This applies to transactions from:

   - Inventory Management/Inventory model group
   - Accounts receivable/Parameters
   - Accounts payable/Parameters
   - Production/Parameters
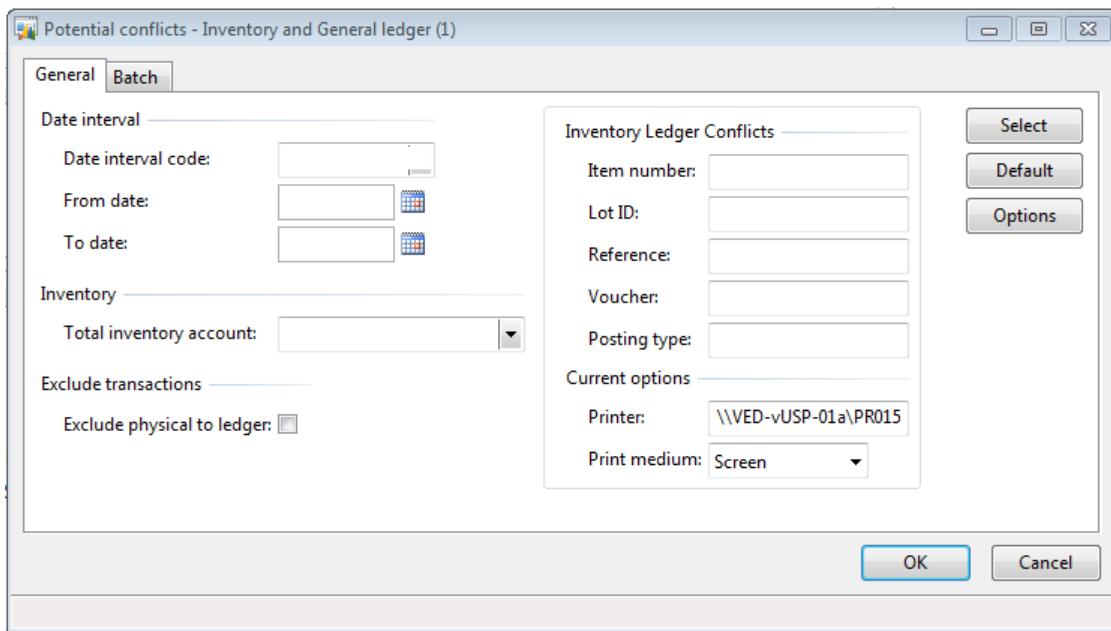
Example: Potential conflicts report

This illustration shows the potential conflicts report with list of transactions that cause conflicts. For each conflict, you get a recommendation for a corrective action.

The Light Company

Potential conflicts - Inventory and General ledger

Page 1
18-04-2010
22:14:45

From date .: 01-03-2010   To date : 31-03-2010   Account number ... : 0_12-09   Exclude physical to ledger ......: No

Inventory	16,00				
General ledger	1.310,00				
Discrepancy	-1.294,00				

Inventory

Item number	Date	Lot ID	Reference	Value	Comment
C	15-03-2010	00438_059	Purchase order	30,00	The setting of the Post physical inventory check box is not correct for the inventory model group WAG -PHY in the Inventory model group form in Inventory management. The setting of the Post packing slip in ledger check box in the Parameters form in Accounts payable is not correct.
E	15-03-2010	00441_059	Production line	-14,00	The posting type Production, picking list has been posted to a main account that does not represent inventory.
G	15-03-2010	00442_059	Production line	50,00	The posting type Production, picking list is a product of the type Service and it has been posted to a main account that represents inventory.
F	15-03-2010	00439_059	Purchase order	-100,00	The posting type Purchase, consumption is a product of the type Service and it has been posted to a main account that represents inventory.
Total				-34,00	

General ledger

Account number	Date	Posting type	Voucher	Value	Comment
0_12-00	15-03-2010	Fixed assets, debit	000003-Acq	-670,00	A posting with un-authorized posting type relating to another module has occurred on this main account representing inventory will cause imbalance.
0_12-00	15-03-2010	Ledger journal	00024_DAY	-590,00	Direct postings on this main account representing inventory will cause imbalance.
Total				-1.260,00	
Grand Total				-1.294,00	

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Microsoft Dynamics is a line of integrated, adaptable business management solutions that enables you and your people to make business decisions with greater confidence. Microsoft Dynamics works like and with familiar Microsoft software, automating and streamlining financial, customer relationship and supply chain processes in a way that helps you drive business success.

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