Microsoft Dynamics® AX 2012

Financial consolidations and currency translation

White Paper

This white paper shows the approach Management Reporter and Microsoft Dynamics AX 2012 use to consolidate multi-company and multi-currency data. It is intended for finance and accounting end users and application consultants.

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FINANCIAL CONSOLIDATIONS AND CURRENCY TRANSLATION
Overview

This white paper steps through the approach both Microsoft Dynamics AX 2012 and Management Reporter use for consolidations. This white paper describes multi-company reporting, aggregation, elimination, and minority interest scenarios, and also describes how to handle special situations, such as legal entities with different fiscal periods or different charts of accounts, and how to access data sources outside Microsoft Dynamics ERPs. Calculating balances with currency translation and the prerequisites for AX 2012 are also discussed. This white paper is written for end users and IT Pros, and it assumes readers have a general understanding of Management Reporter and AX 2012. Basic setup is not covered.

*Note:* The term *legal entity* is used in Microsoft Dynamics AX, and the term *company* is used in Management Reporter. These terms have been used as such throughout this white paper; however, for the purposes of this white paper, their meanings are the same.

Audience

This white paper is intended for finance and accounting end users and application consultants who want to use Management Reporter and AX 2012 to consolidate multi-company and multi-currency data.

Approach

Microsoft Dynamics AX uses what is often called a hard consolidation, creating a separate legal entity in Microsoft Dynamics AX. It allows for single-instance consolidation, with an option to bring in data from other sources. The consolidation process must be run each time changes are made in the source legal entities.

Management Reporter uses what is often called a soft consolidation during report generation. Although the data is stored in a data mart, is versioned, and can be exported, each source legal entity is the owner and container of the data. The consolidation can be run at any time, even every minute (for example), and it provides many additional benefits, including drill-down capabilities to all legal entities and dimensions.

The following illustrations show the steps for doing consolidations in AX 2012 and Management Reporter.
Consolidations in Microsoft Dynamics AX

1. Complete closing activities required for each individual company
   - Post adjusting entries
   - Revalue currencies
   - Run the trial balance (probably several times)

2. Process allocations

3. Run the consolidation process
   - Includes currency translation

4. Verify and adjust eliminations
   - Adjust elimination accounts as needed (in consolidation company)

5. Re-run the consolidation process

6. Generate consolidated financial statements

Consolidations in AX 2012 with Management Reporter

1. Complete closing activities required for each individual legal entity
   - Post adjusting entries
   - Revalue currencies
   - Run the trial balance (probably several times)

2. Process allocations

3. Verify and adjust eliminations
   - Generate consolidated trial balance
   - Print elimination report
   - Adjust elimination accounts as needed (in each legal entity using intercompany transactions)

4. Generate consolidated financial statements
   - Includes currency translation
Benefits of using Management Reporter for financial consolidations and currency translation

Customers using Management Reporter for financial consolidations and currency translation will recognize a variety of benefits:

- **Depth of data** – You can create consolidated reports that bring together actual and budget data, at both the account and dimension level. For Microsoft Dynamics AX, this includes data from both Budgetary Control and Budget Planning.

- **Dynamic consolidations** – Consolidations can be done at any time, at any level in the organizational hierarchy. No dummy consolidation company setup is required.

- **Complete audit capabilities** – All dimensions, accounts, and transactional detail are maintained for analysis and audit. In addition, Management Reporter provides full drill-back to the original transaction in any of the legal entities being consolidated.

- **Consolidate with data outside Dynamics** – You can use Microsoft Excel to easily bring in data from non–Microsoft Dynamics ERPs.

- **Streamlined currency translation** – After minimal setup in Microsoft Dynamics AX, you can translate any Management Reporter report into any reporting currency that has been set up. In addition, you can set up an unlimited number of reporting currencies.

- **Post eliminations at the source** – You have the option to print an elimination report to verify elimination transactions, and then post any new eliminations as standard intercompany transactions. You also can choose to use an elimination legal entity for any transaction you don’t want in your legal entities.

Supported consolidation scenarios

Management Reporter and AX 2012 support the following consolidation scenarios, among others:

- Single-level and multi-level consolidations across legal entities
- Consolidations using organization structures that are created with legal entities
- Consolidations with eliminations
- Minority interest
- Multiple charts of accounts across legal entities
- Different fiscal calendars across multiple legal entities
- Consolidations using multiple Microsoft Dynamics ERPs
- Consolidations using multiple AX 2012 instances
- Consolidations using ERP data outside AX 2012
- Consolidations with multiple reporting currencies
- Business unit consolidations
Generating consolidated financial statements

This section covers the different scenarios around generating consolidated financial statements.

Single-level and multi-level consolidations across legal entities

The simplest method for consolidating by using Management Reporter is to use reporting trees to aggregate data across companies that have the same chart of accounts and fiscal periods. For this consolidation method, all companies will need to be using a Microsoft Dynamics ERP (Microsoft Dynamics AX, Microsoft Dynamics GP, or Microsoft Dynamics SL); however, it can be a mix of the various Microsoft Dynamics ERPs.

Tip: Verify that all dimensions are named the same across legal entities. For example, if legal entity CEU has a dimension named Department, verify that it is also named Department in legal entity CEE, not Dept or Segment 1. Although this step is not a prerequisite, it simplifies report design.

The high-level steps to consolidate by using a reporting tree are as follows:

1. Create a row definition, ensuring that all appropriate accounts in all companies are included in the rows.
2. Create a column definition that includes the columns required for the report you are creating.
3. Create a reporting tree that includes a reporting node for each of the companies that you are using on consolidated reports.

Tip: For more information on how to create and manage row definitions, column definitions, and reporting trees, see Create and manage report components.

Figure 1 shows an example of how to use a Management Reporter reporting tree definition to identify each company you will be consolidating.

![Figure 1 Management Reporter consolidated reporting tree definition](image-url)
The consolidated report in Figure 2 shows that, when you use this reporting tree with a report definition, you can view each company individually, with the consolidated amounts displayed at the summary level.

![Figure 2 Management Reporter consolidated report](image)
Likewise, you can create a multi-level reporting tree, including as many levels as you require. Figure 3 shows a reporting tree definition that has roll-ups by worldwide regions.

![Figure 3 Multi-level reporting tree with roll-ups by region](image-url)
Figure 4 shows a multi-level reporting tree definition that has roll-ups by function.
**Viewing companies side by side**

Many customers prefer seeing each company side by side on the report and then a consolidated total column. This is very easy to do after you have created the reporting tree. The high-level steps to view companies side by side on consolidated financial statements are as follows:

1. Create a column definition that includes a Financial Dimension column for each company.
2. Use the **Reporting Unit** field to select the tree and reporting unit for each column.
3. Optional: Add headers and totaling columns.

Figure 5 shows a column definition in a side-by-side format.

<table>
<thead>
<tr>
<th>A</th>
<th>Contoso Entertainment Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>CEU</td>
</tr>
<tr>
<td>C</td>
<td>DESC</td>
</tr>
<tr>
<td>D</td>
<td>BASE</td>
</tr>
<tr>
<td>E</td>
<td>PERIODIC</td>
</tr>
<tr>
<td>F</td>
<td>B+C</td>
</tr>
<tr>
<td>G</td>
<td>Autofit</td>
</tr>
</tbody>
</table>

**Figure 5 Column definitions with companies side by side**
Consolidations using organization structures that are created with legal entities

Organization hierarchies in AX 2012 dynamically create reporting tree definitions in Management Reporter, provided that they contain dimensions or legal entities. An easy way to streamline consolidations is to add an organization hierarchy to your report in Management Reporter. Based on the report date, Management Reporter will choose the organization hierarchy on or before the effective date, as shown in Figure 6.

Figure 6 AX 2012 organization hierarchy in Management Reporter
**Consolidations with eliminations**

Elimination transactions are a common part of the consolidation process. In this example, five accounts are eliminated during consolidation: 142600, 211400, 401420, 401180, and 510820.

Companies might set up their intercompany accounts differently; for example, some companies set the last digit to 9 if it is used in intercompany transactions. Regardless of the method, knowing the intercompany accounts will let you show eliminations on your consolidated financial statements.

Figure 7 shows a column definition for a consolidated income statement. Three profit and loss intercompany accounts are defined for each company by using the dimension filter. Column D includes only the elimination accounts for the CEU company, and column E includes eliminations for the CEED company. Both column D and column E are set up so that they are not printed on the financial statement.

![Figure 7: Selecting intercompany accounts](image)

When the report is generated, the elimination amounts are calculated in columns D and E, and they are totaled in column F. Column G shows the consolidated amounts, excluding eliminations for the CEU and CEED companies.

**Tip:** Create a second report that shows only the elimination entries, and use it in a report group with your consolidated report. In this way, you have all the information you need to create any required journal entries.
Figure 8 shows the consolidated report.

Figure 8 Consolidated report containing eliminations

Whether you use accounts, dimensions, or both, Management Reporter lets you filter out the elimination entries by using the dimension filtering capabilities.

**Minority interest**

A company might own only a percentage of another company. In this situation, when you are producing a consolidated report, it is important to account for only the percentage of ownership that the company owns. Management Reporter has multiple ways to show minority interest, depending on user preference. One way is to use a roll-up percentage in the reporting tree definition. Another way is to show it as a separate line on a report.
Using the reporting tree definition

In the reporting tree definition, enter the percentage of ownership in the Rollup % column, column K, as shown in Figure 9. When the report is generated, this percentage will be used to calculate the consolidated amount. In this example, Contoso owns only 80 percent of Contoso Denmark. You can enter 80 or .8 in the Rollup % column, and 80 percent will roll up to the consolidated level.

**Note:** You can apply this ownership percentage to any reporting unit, not just at the company level. This is helpful when ownership is a business unit level or division level, not just a legal entity level.

<table>
<thead>
<tr>
<th>Reporting Tree Definition</th>
<th>A Company</th>
<th>B Unit Name</th>
<th>C Unit Description</th>
<th>D Dimensions</th>
<th>E Row Definitions</th>
<th>F Row Level</th>
<th>G External Level</th>
<th>H IIBL Dimension</th>
<th>I External File</th>
<th>J Page Options</th>
<th>K Rollup %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidate</td>
<td>1 @ARY</td>
<td>Consolidate</td>
<td>Consolidate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Consolidate</td>
<td>2 CEO</td>
<td>CEO</td>
<td>Contoso Entertainment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>80</td>
</tr>
<tr>
<td>Consolidate</td>
<td>3 CEO</td>
<td>CEO</td>
<td>Contoso Denmark</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>80</td>
</tr>
</tbody>
</table>

*Figure 9 Using a roll-up percentage in a reporting tree definition*

When the report is generated, the Contoso Denmark report will show 100 percent of the sales amount, and 80 percent of the amount will be allocated and rolled up to the consolidated level for sales, as shown in Figure 10.

**Note:** For the month of June, Contoso Entertainment did not have any sales, so the sales amount reflects only Contoso Denmark in this case.

*Figure 10 Consolidated report with a roll-up percentage*
If you own less than 1 percent of a company, you can select the Allow rollup less than 1% check box on the Additional Options tab of the Report Settings form, as shown in Figure 11. Values in the Rollup % column in the reporting tree will then be treated as less than 1 percent. For example, if you enter .8, .8 percent would roll up to the consolidated level, not 80 percent. Alternatively, you can achieve the same result by leaving the Allow rollup less than 1% check box cleared and entering .008 in the Rollup % column.

Figure 11 Allow rollup less than 1% setting

Showing ownership as a separate row on the consolidated report
Another option for minority interest is to show 100 percent of the subsidiary for every line on the report but subtract the non-controlling interest from the net income.

An IF THEN ELSE statement and column restriction in the row definition can be used to calculate minority interest in financial reports, as shown in Figure 12.

Figure 12 Non-controlling interest in a row definition
Multiple charts of accounts across legal entities

Often, different legal entities have different charts of accounts but still want to produce consolidated financial statements. In this situation, Management Reporter can be used to consolidate the data, letting you generate consolidated financial reports.

The high-level steps to consolidate when different charts of accounts exist across legal entities are as follows:

1. Create a row definition with multiple links to financial dimensions, one for each chart of accounts.
2. Use the reporting unit restriction in the column definition to assign each company to the appropriate column.
3. Use the reporting unit restriction in the column definition to assign each company to the appropriate column.

Multiple links to financial dimensions can be added to each row in the row definition for each unique company’s chart of accounts.

Tip: For more information on the Link to Financial Dimensions cell, see Specify Link to Financial Dimensions cell.

In Figure 13, CEU is using the set of accounts in the first Link to Financial Dimensions column, column J, and CEE is using the accounts in the second Link to Financial Dimensions column, column K.

Figure 13 Multiple chart of accounts setup
You can use a reporting tree to define which link to financial dimensions from the row definition is used with each company. Select the row definition in column E, and then select the appropriate row link in column F, as shown in Figure 14.

![Figure 14 Associating a link from the row definition to the reporting tree unit](image)

**Tip:** When creating the link to financial dimensions, use the description to identify which companies the link applies to. This makes it easy to select the correct company when you create a reporting tree.

In the column definition, the **Reporting Unit** field lets you restrict each column to a particular unit of the reporting tree, so you can view the data side by side. If you don’t indicate a specific company for a column, consolidated data for all companies will be displayed.

**Different fiscal calendars across multiple legal entities**

Different legal entities might have different fiscal calendars and still be required to produce consolidated financial statements.

The high-level steps to consolidate when different fiscal periods exist across legal entities are as follows:

1. Create a column definition, and use the period and year to map the appropriate periods for each company.
2. Use a reporting unit restriction in the column definition to assign each company to the appropriate column.

**Tip:** When you are designing the column definition for multiple companies with different fiscal periods, it is important to consider which company will be assigned to the **Company name** field in the report definition. This is the company that will be used as the base fiscal calendar for the report definition.

In the following example, the table shows the fiscal period setup for legal entities CEU and CEE. Assuming CEU uses the fiscal calendar that you prefer to use for consolidated reports, if a report is generated for June 30, 2008, the Mapping column shows the equivalent period and year for each company.

<table>
<thead>
<tr>
<th>Company</th>
<th>Fiscal year</th>
<th>Mapping</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEU</td>
<td>Fiscal year, July 1 through June 30</td>
<td>Period 12, fiscal year 2008</td>
</tr>
<tr>
<td>CEE</td>
<td>Calendar year, January 1 through December 31</td>
<td>Period 6, fiscal year 2008</td>
</tr>
</tbody>
</table>
Figure 15 shows the report definition that has the CEU company defined in the **Company name** field, which means the CEU company will be used as the base fiscal calendar. In this example, when a report is generated for June 30, 2008, the CEU company will use the BASE period, which is period 12 based on the report definition, and CEE will use BASE–6, which is period 6. Both columns will include data for June 2008.

![Figure 15 Defining a fiscal year and period for different fiscal calendars](image)

**Consolidating with ERP data outside AX 2012**

When data resides in companies that are not using a Microsoft Dynamics ERP general ledger, Management Reporter can still consolidate the data. The method is referred to in Management Reporter Help as linking reports to Excel. Using this method is easy and a great way to take advantage of all of the Management Reporter features while still consolidating data from multiple systems.

**Tip:** For more information on how to link to reports by using Excel in the Report Designer in Management Reporter, see [Link reports to Microsoft Excel](#).

The high-level steps to bring in and report on data from non-Microsoft Dynamics ERP general ledgers are as follows:

1. Create one or more Excel files containing the data from the non-Microsoft Dynamics ERP.
2. In the row definition, add a new row link to use in the Link to External Worksheet column.
3. Add cell references to the rows in the row definition.
4. Add a column type of **WKS (Amounts from external worksheet)** to the column definition.
5. For each node in the reporting tree that will need to pull data from an Excel worksheet, indicate the row definition, the external link, and the external file location.
6. In the report definition, select the **Use row definition from reporting tree** check box.

In Figure 16, two companies use non–Microsoft Dynamics ERPs, Contoso Asia and Contoso Europe. The row definition contains a link type of **External Worksheet**. In this link, the cell references from Excel for the rows of data are defined. Notice that the path of the Excel file is not yet defined; this comes later in the reporting tree definition.

You can also use the CPO (column period offset) and RPO (row period offset) row options to make the report more dynamic. Figure 16 shows that the sales data starts in cell B5 in the Excel file, so the cell reference is A5/CPO. When the report is generated for period 1, Management Reporter will report the data in the cell that is one column to the right of cell A5, which is cell B5.

*Figure 16 Adding an external worksheet link*
The column definition uses a **WKS (Amounts from external worksheet)** type to bring in the data from the Excel file, as shown in Figure 17.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contoso Entertainment Systems</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DESC</td>
<td>FD</td>
<td>WKS</td>
<td>WKS</td>
<td>CALC</td>
</tr>
<tr>
<td>ACTUAL</td>
<td>BASE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BASE</td>
<td>PERIODIC</td>
<td>PERIODIC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autofit</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSOLIDATED~CONTOSO USA</td>
<td>CONSOLIDATED~CONTOSO ASIA</td>
<td>CONSOLIDATED~CONTOSO EUROPE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 17 Defining a worksheet column**

The reporting tree plays an important role when you use this method to consolidate data. Each node in the reporting tree defines a company. Contoso Asia is row 3, and Contoso Europe is row 4, as shown in Figure 18. Because they are not legal entities defined in a Microsoft Dynamics ERP, the company code @ANY is used in the Company column, column A, of the reporting tree.

<table>
<thead>
<tr>
<th>A Company</th>
<th>B Unit Name</th>
<th>C Unit Description</th>
<th>D Row Definitions</th>
<th>E Worksheet Link</th>
<th>H Workbook or Report Path</th>
<th>I Worksheet Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>@ANY</td>
<td>Consolidated</td>
<td>Consolidated</td>
<td>Summary Income Statement External...</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USHF</td>
<td>Contoso</td>
<td>Contoso Entertainment</td>
<td>Summary Income Statement External...</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>@ANY</td>
<td>OEA</td>
<td>Contoso Eastern Asia</td>
<td>Summary Income Statement External...</td>
<td>C VDM Backups/Trended Income Statement_OEA.xlsx</td>
<td>C VDM Backups/Trended Income Statement_OEA.xlsx</td>
<td></td>
</tr>
<tr>
<td>@ANY</td>
<td>OEE</td>
<td>Contoso Eastern Europe</td>
<td>Summary Income Statement External...</td>
<td>C VDM Backups/Trended Income Statement_OEE.xlsx</td>
<td>C VDM Backups/Trended Income Statement_OEE.xlsx</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 18 Identifying a worksheet link in the reporting tree definition**

The row definition that contains the link to an external worksheet is defined in the Row Definitions column, column E. After this is selected, the Worksheet Link column, column G, will contain a drop-down list with the links defined. The last step in setting up the reporting tree definition is to define the path of the Excel file in the Workbook or Report Path column, column H.

If there are multiple tabs (worksheets) in the workbook, enter the tab name in the Worksheet Name column, column I. For an example, see Contoso Asia in Figure 18. If there are not multiple tabs (worksheets) in the workbook, define the path of the workbook. For an example, see Contoso Europe in Figure 18.
After the reporting tree is created, you can optionally make the report a side-by-side report by entering a reporting unit restriction in the column definition, as shown in Figure 19.

![Figure 19 Companies side by side in a column definition](image)

Finally, select the **Use row definition from reporting tree** check box in the report definition, as shown in Figure 20.

![Figure 20 Use row definition from reporting tree setting](image)

**Consolidating on multiple AX 2012 databases and multiple Microsoft Dynamics ERPs**

Management Reporter lets customers consolidate and do multi-company reporting across multiple AX 2012 databases, and also across multiple Microsoft Dynamics ERPs, such as Microsoft Dynamics AX 2009, Microsoft Dynamics GP, Microsoft Dynamics SL, or Microsoft Dynamics NAV. Many customers
have subsidiaries running different Microsoft Dynamics ERPs and versions, and Management Reporter meets this consolidation need.

Management Reporter creates a data mart that trickles data from each ERP system database into a single data mart. Each legal entity from each database will be shown as a separate company in Management Reporter for reporting. The only requirement is that the legal entity IDs must be unique. For example, Contoso Entertainment cannot have an ID of CEU in both the North America Microsoft Dynamics AX database and the EMEA Microsoft Dynamics AX database.

Business unit consolidations

This white paper has focused on using Management Reporter reporting tree definitions and AX 2012 organization hierarchies for consolidation purposes. A common requirement is for business unit consolidation reports, such as reporting on worldwide sales or operations. You can use the reporting tree to accomplish this by selecting a company and a dimension for each unit you want to consolidate on. In the example shown in Figure 21, the business unit roll-up is accomplished by repeating each company in the Company column, column A, and identifying a group of Department dimension values per company in the Dimensions column, column D.

<table>
<thead>
<tr>
<th>Reporting Tree Definition</th>
<th>A Company</th>
<th>D Unit Name</th>
<th>C Unit Description</th>
<th>D Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidated</td>
<td>QUANT</td>
<td>CONOIL</td>
<td>Consolidated</td>
<td></td>
</tr>
<tr>
<td>Human Resource &amp; Legal</td>
<td>QUANT</td>
<td>HR</td>
<td>Human Resource &amp; Legal</td>
<td></td>
</tr>
<tr>
<td>Contoso Retail - France Human Resources &amp; Legal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contoso Retail - USA Human Resources &amp; Legal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contoso Retail Human Resources &amp; Legal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td>PRRT</td>
<td>HR</td>
<td>Contoso Retail - France Human Resources &amp; Legal</td>
<td>Department = 021-021</td>
</tr>
<tr>
<td>Contoso Retail - France IT</td>
<td>PRRT</td>
<td>IT</td>
<td>Contoso Retail - France IT</td>
<td>Department = 021-021</td>
</tr>
<tr>
<td>Contoso Retail - USA IT</td>
<td>USRT</td>
<td>IT</td>
<td>Contoso Retail - USA IT</td>
<td>Department = 021-021</td>
</tr>
<tr>
<td>GRT</td>
<td>IT</td>
<td>IT</td>
<td>Contoso Retail Human Resources &amp; Legal</td>
<td>Department = 021-021</td>
</tr>
<tr>
<td>02</td>
<td>SM</td>
<td>SALES &amp; MARKETING</td>
<td>Contoso Retail - France Sales &amp; Marketing</td>
<td>Department = 022</td>
</tr>
<tr>
<td>10</td>
<td>SM</td>
<td>SALES &amp; MARKETING</td>
<td>Contoso Retail - USA Sales &amp; Marketing</td>
<td>Department = 022</td>
</tr>
<tr>
<td>12</td>
<td>USRT</td>
<td>SM</td>
<td>Contoso Retail - USA Sales &amp; Marketing</td>
<td>Department = 022</td>
</tr>
<tr>
<td>13</td>
<td>GRT</td>
<td>SM</td>
<td>Contoso Retail Sales &amp; Marketing</td>
<td>Department = 022</td>
</tr>
<tr>
<td>14</td>
<td>QUANT</td>
<td>OPER</td>
<td>OPERATIONS</td>
<td>Department = 023</td>
</tr>
<tr>
<td>15</td>
<td>PRRT</td>
<td>OPER</td>
<td>Contoso Retail - France Operations</td>
<td>Department = 023</td>
</tr>
<tr>
<td>16</td>
<td>USRT</td>
<td>OPER</td>
<td>Contoso Retail - USA Operations</td>
<td>Department = 023</td>
</tr>
<tr>
<td>17</td>
<td>GRT</td>
<td>OPER</td>
<td>Contoso Retail Operations</td>
<td>Department = 023</td>
</tr>
<tr>
<td>18</td>
<td>QUANT</td>
<td>FINANCE</td>
<td>FINANCE</td>
<td>Department = 023</td>
</tr>
<tr>
<td>19</td>
<td>PRRT</td>
<td>FINANCE</td>
<td>Contoso Retail - France Finance</td>
<td>Department = 023</td>
</tr>
<tr>
<td>20</td>
<td>USRT</td>
<td>FINANCE</td>
<td>Contoso Retail - USA Finance</td>
<td>Department = 023</td>
</tr>
<tr>
<td>21</td>
<td>GRT</td>
<td>FINANCE</td>
<td>Contoso Retail Finance</td>
<td>Department = 023</td>
</tr>
</tbody>
</table>

Figure 21 Defining a business unit consolidation

Consolidating with multiple reporting currencies

Management Reporter offers increased flexibility in viewing actual, budget, budget control, and budget planning data in multiple currencies. By bringing across key setup data from AX 2012, you do not have to perform any additional set up in Management Reporter to view any report, in any currency, at any time for any user.
**Prerequisites**

To properly calculate translated balances, Management Reporter requires the Retained Earnings Account category to be assigned to the Retained Earnings account in AX 2012. Management Reporter does not support posting to the Retained Earnings account. If transactions are posted to the Retained Earnings account, the translated balances will not be calculated correctly. Users are encouraged to set up an additional Retained Earnings account for posting adjustments to the Retained Earnings account.

**Note:** Management Reporter cumulative update 7 (CU7) is the minimum required version for currency translation with AX 2012.

In AX 2012, the **Currency translation type** and **Exchange rate type** fields on the Management Reporter FastTab must be set for each account, as shown in Figure 22. You can do this on an account-by-account basis, or you can use the account templates to easily roll down changes.

- In the **Exchange rate type** field, select the exchange rate type that contains the currencies and exchange rates you want to apply to the account. This table of currencies and exchange rates will be applied to actual data in Management Reporter.

- In the **Currency translation type** field, select the method used to calculate the exchange rate for the account. This currency method is used for both actual and budget data in Management Reporter.

![Figure 22 Management Reporter FastTab in an AX 2012 chart of accounts](image-url)
For budget, budget control, and budget planning data, the exchange rate type is defined in the Ledger form. This is the table that will be used to pull the exchange rates, and the currency translation type is the one assigned to the account.

**Currency translation methods**

The following are the four options in AX 2012 for calculating exchange rates in Management Reporter:

- **Weighted average** – This method is used most often for profit and loss accounts, and it uses the formula (Exchange rate * Days in effect)/Days in period.
- **Average** – This is an alternative method for profit and loss accounts, and it uses the formula Total of exchange rates/Number of exchange rates.
- **Current** – This method is used most often for balance sheet accounts. The exchange rate used is the rate on or before the date of the report or column in Management Reporter.
- **Transaction date** – This method is used for fixed assets accounts. The exchange rate used is the rate on the day the asset was acquired. If a rate is not entered for that date, the rate used is the previously entered rate closest to the asset acquisition date.

**Report Designer options for currency translation**

In the Management Reporter Web Viewer, any report can be displayed in any number of reporting currencies. You might want to pre-generate the reports in your reporting currencies for the fastest response time. The changes you’ll see in the report definition to facilitate this are as follows:

- A Currency Information section in the Report Definition form that displays the currency the values are displayed in upon report generation.
- A new Include all reporting currencies check box. When this check box is selected, the reporting currencies will queue up after the report with the company’s functional currency is generated. If the check box is cleared, you can still select a reporting currency in the Web Viewer; it will just take longer to process.

The new options in the report definition let you easily translate a report into all of your reporting currencies. This means you can potentially eliminate duplicate report definitions that differ only in the currencies used. If you need a report that shows more than one currency side by side, you can continue to use the Currency display field in the Column Definition form to translate just that column in the report into an alternate reporting currency.

**Currency translation adjustment**

The currency translation adjustment (CTA) is the difference between the rates used to calculate the balance sheet accounts and the rate used for the income statement accounts. This will cause the balance sheet to be out of balance.
You can use Management Reporter to calculate the CTA in two ways:

- Use the **Rounding Adjustments** form in the row definition, as shown in Figure 23.

![Rounding Adjustments form](image)

*Figure 23 Rounding Adjustments form*

When you enter the row in which you want to display the CTA, the total assets row, the total liabilities and equity row, and the threshold you are comfortable with, Management Reporter will calculate this difference and put it in the desired row. A line named Rounding Adjustment will be created and shown upon drill-down, as shown in Figure 24.

![Balance Sheet](image)

*Figure 24 Rounding adjustment in account-level drill-down*
• Put all of the accounts in a range, from assets to expenses. As shown in Figure 25, this difference will be the same amount as the rounding adjustment (CTA) and can be used as a check total to make sure the rounding adjustment form is not including any missed account balances.

\[
\text{Range of all Accounts} \quad 0.00 \quad (344,447.61) \quad (344,447.61)
\]

**Figure 25 Secondary method for CTA**

**Balance calculation approach**

Management Reporter calculates the balances as follows to get properly translated amounts when currencies are used:

- **Weighted average and average** – Each period is calculated at its weighted average and totaled for columns such as quarterly and year to date.
- **Historical** – Any account that uses the historical translation method always goes back to the transaction. Each period is then totaled and stored to improve the calculation time.
- **Current** – Calculated and total columns, such as quarterly and year-to-date, are calculated at the spot rate determined in the column or on the report. For example, the Quarter 1 column will use the March 31 rate, assuming a calendar year.
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