Strategic Finance User's Guide, 11.1.2.4.000

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Part I
Building Financial Models
Overview

Oracle Hyperion Strategic Finance integrates and consolidates financial forecast models among your corporate planning, business development, treasury, and investor relation groups. This includes interaction between corporate groups, business units, and the corporate office. The result is enhanced, consistent communication within the company. Strategic Finance reduces the time and planning costs while assuring accurate analytics. It is ideal for merger and acquisition analysis, strategic planning, equity analysis, deal underwriting, and portfolio analysis.

Strategic Finance enables you to centralize financial data using these enterprise-wide data management capabilities and tools:

- “Integration with EPM System Products” on page 33
- “Consolidation” on page 34
- “Entity Change Management” on page 34
- “Sensitivity Analysis” on page 34

Integration with EPM System Products

Integrating Oracle Enterprise Performance Management System products unifies enterprise financial information. Importing and exporting data between products saves time and lowers errors in transfer. Oracle Essbase users can also import both metadata and data from Strategic Finance.

Strategic Finance integrates with:

- Oracle Hyperion Planning—See Chapter 24, “Importing and Exporting EPM System Product Data”.

Integration with EPM System Products
Consolidation

Use the consolidator to combine entities representing different business units into one model. This tool enables you to perform these tasks:

See Chapter 13, “Consolidating Financial Models”.

- Consolidate basic file information, methods, scenarios and time periods
- Control consolidation information and subaccount details
- Export data to EPM System products

Entity Change Management

Use the Entity Change Manager (ECM) to standardize entity metadata and apply changes made to parent entities to child entities, ensuring uniformity.

See Chapter 16, “Updating Models Using Entity Change Management”.

Sensitivity Analysis

Sensitivity Analysis determines how key variable changes affect results.

See Chapter 15, “Performing Advanced, What If? Analysis”.

About Creating Financial Models

You will perform these tasks to create and evolve your financial models:

- Select the server and database to use.
  See “Accessing Servers and Databases” on page 57.
- Existing users: Select existing model template.
  See “Converting Templates” on page 44.
- Create a template and model (entity) file, and define the model duration time using:
  - The Time Period Wizard
  - The New Entity Wizard

  See “Creating and Opening Model Files” on page 44.
- Define user and group access to other models and items such as dimensions, scenarios, and reports.
  See “Controlling Local Access” on page 52.
Create or use the provided accounts, and input data. See Chapter 4, “Working With Financial Accounts”.

Project financial results using provided (e.g. growth rate) or custom forecast method. See Chapter 5, “Forecasting”.

Define funding and debt repayment options. See Chapter 7, “Using Funding Options”.

Define tax and valuation options such as shareholder value, dividend discount, and economic profit. See Chapter 8, “Using Tax and Valuation Options”.

Convert international currencies. See Chapter 14, “Translating Currencies”

Apply changes and ensure uniformity in your model using the Entity Change and Assumptions Change Managers.

Insert data from Microsoft Excel into your model using worksheets. See Chapter 9, “Using Worksheets”

Amalgamate multiple models. See Chapter 13, “Consolidating Financial Models”.

Analyze financial models using different scenarios and targets. See Chapter 15, “Performing Advanced, What If? Analysis”.

Use graphs and reports to depict financial data in a variety of formats. See Chapter 19, “Using Provided and Freestyle Reports” and Chapter 20, “Working with Graphs”.

Requirements

Before using the product, ensure that an Administrator has performed these tasks:

- Added your user or group account to Oracle Hyperion Shared Services and assigned the Basic User security role or configured to use an existing authentication system.
- Assigned additional Strategic Finance-specific access rights to your account in the Strategic Finance Administrator
- Created and configured the Oracle Hyperion Strategic Finance Server
- Configured connections to the appropriate databases

Interface Elements

1. Title bar—Displays the product name, the file name, and the current scenario.
2. Menu bar—Drop-down menus organize commands to use Strategic Finance.
3. Toolbar — Contains buttons to access common tasks.
4. Edit bar—Enables editing data. This changes by view. See “Edit Bar (Accounts View)” on page 36 and “Edit Bar (Report View)” on page 36.
5. Workspace — Displays the financial model in the selected view.
6. Tabs—The tabs at the screen bottom enable you to easily navigate through the various views.
7. Status bar—Display information about commands, accounts, and file status. See “Status Bar” on page 36.

**Using Zoom**

To increase or decrease screen magnification:

1. Select View then Set Zoom Percentage.
2. In Magnification, select a size percentage.
3. Click OK.

**Edit Bar (Accounts View)**

You select Accounts, and the edit bar displays:

- **Group**—Select account groups. Includes predefined groups and groups in the Customize view.
- **View**—Selects dataviews for the Account workspace.
- **Scenario**—Changes the current scenario.
- **Forecast/Formula**—When an input account is selected, this area displays the forecast method. When a calculated account is selected, it displays the formula.

**Edit Bar (Report View)**

With reports, the edit bar accesses accounts and scenarios, enables editing values, displays account attributes, and displays forecast methods or formulas.

- **Account**—Displays account names. To select accounts, click on or enter names.
- **Input**—Displays historical data or forecast method assumptions. You can enter assumptions.
- **Scenario**—Switches scenarios.
- **Formula**—When an input account is selected, this displays the forecast method. When a calculated account is selected, it displays the formula.

**Status Bar**

The status bar displays information about commands, accounts, and processing:

- The first field on the left displays a brief description when you select a menu commands or move the cursor over toolbar buttons.
- The next field displays the historical average for the selected financial account in the Financial Accounts or Report view.
The next field tells you whether the file is recalculated since the last modification.
  - “Ready”— All scenarios are calculated.
  - “Calc”— Recalculate.

The last field shows if the current scenario is recalculated since last modified.
  - “Ready”—The current scenario is calculated.
  - “Calc”—Recalculate.

**Link Indicators**

In the Accounts spreadsheet, links to imported data are indicated by colored checkmarks as follows in the lower-right corner of cells:

- Hot Link: Blue
- Model link: Green
- Global assumption: Red
- Oracle Hyperion Financial Data Quality Management import: Magenta
- Excel import: Black

**Accounts View**

Use the Accounts tab to create financial models by entering recent or historical data, forecast assumptions, and viewing calculated output. Each account has three rows

- **Output**—black text, calculated, cannot be edited
- **Input**—blue text, input, can be edited
- **Notes**—for account descriptions, miscellaneous

For example, if the Sales account for the prior year was $100 million, input 10% (enter ‘10’ without the ‘%’ symbol) Annual Sales displays as $110 million in the output (10% growth over $100 million in the prior year)

**Worksheet View**

Use the Worksheet view to create spreadsheets to calculate and store data. Import data from Microsoft Excel that you want to link to Accounts to this view. You can have many links between worksheets and Accounts.

**Report Views**

Use the Reports view to display output in a variety of standard or customized Freestyle reports. See Chapter 19, “Using Provided and Freestyle Reports”.
Keyboard Shortcuts

These keyboard shortcuts are another way to use Strategic Finance.

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<tr>
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<th>Function</th>
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<td>F1</td>
<td>Help</td>
</tr>
<tr>
<td>F8</td>
<td>Calculate All</td>
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<td>F9</td>
<td>Calculate</td>
</tr>
<tr>
<td>CTRL + N</td>
<td>File New</td>
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<tr>
<td>CTRL + O</td>
<td>File Open</td>
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<tr>
<td>CTRL + S</td>
<td>File Save</td>
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<td>CTRL + P</td>
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Account View

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<td></td>
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<td>Inside cells—erases right of the cursor.</td>
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<td>Selecting cells—clears the cell.</td>
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<td>END</td>
<td>Moves to the last row value.</td>
</tr>
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<td>ENTER</td>
<td>Enters data input in cell.</td>
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<td>HOME</td>
<td>Moves to the first row value.</td>
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<td>Moves left or right one cell.</td>
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<td>TAB</td>
<td>Moves right one cell.</td>
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### Key Function

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<tr>
<td>SHIFT TAB</td>
<td>Moves left one cell.</td>
</tr>
<tr>
<td>UP or DOWN ARROW</td>
<td>Moves up or down one cell.</td>
</tr>
</tbody>
</table>

### Report View

<table>
<thead>
<tr>
<th>Key</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>F2 (Edit)</td>
<td>Moves the cursor to the Input box.</td>
</tr>
<tr>
<td>F3 (Find and Replace)</td>
<td>See “Finding and Replacing Data” on page 76.</td>
</tr>
<tr>
<td>F5 (Refresh)</td>
<td>Refreshes Freestyle reports</td>
</tr>
<tr>
<td>F7 (Analyze)</td>
<td>See “Using Analyze” on page 87.</td>
</tr>
<tr>
<td>F8 (Calculate All Scenarios)</td>
<td>Calculates the current scenario.</td>
</tr>
<tr>
<td>F9 (Calculate)</td>
<td>Calculates all scenarios.</td>
</tr>
<tr>
<td>HOME</td>
<td>Moves cursor to the first row value.</td>
</tr>
<tr>
<td>END</td>
<td>Moves cursor to the last row value.</td>
</tr>
</tbody>
</table>

### Setting Preferences

To specify user preferences, select **Analysis**, then **User Preferences**, and then select the appropriate tab. See:

- “Setting General Preferences” on page 39.
- “Changing Language Settings” on page 40.
- “Setting Accounts Tab Preferences” on page 40
- “Setting View Preferences” on page 40.
- “Setting Calculation Preferences” on page 41.
- “Setting Global Assumptions Preferences” on page 41.

### Setting General Preferences

To specify general preferences:

1. Select **Analysis**, then **User Preferences**, then **General**, and then specify any of the following:
   - **Show New File Template dialog** — Template to use to create files.
   - **Require Password on Saving** — Protect files with passwords.
● **Limit Currency Name Choices to Default List** — Disable adding currencies

● **Place New Entities at Root** — Save entities at the root.

● **Use Default Windows Color Scheme** — Revert to Microsoft Windows color scheme

● **Movement on Enter** — Where to move the cursor after you press Enter.

● **Name** — Scenario author

● **Data Directory** — Where to store files.

● **Template Directory** — Where to store templates

● **Import Directory** — Where to store imported files.

● **Compression Level** — Speed for client-server file transfer.

● **Default language** — Browse to the language

2 Click OK.

### Changing Language Settings

➢ To change the language in which to use the product:

1 On the **User Preferences—General tab**, select another language from **Select language to use**.

2 Click **Refresh** or restart.

### Setting Accounts Tab Preferences

➢ To set accounts user preferences:

1 On the **Accounts** tab, select **Show Frame for Account Rows** to display account numbers (vxxx.xx.xxxx).

2 Select **Show Frame for Time Columns** to display time periods.

3 In **Number of Decimals for Input Display**, enter the number of decimal values you can enter.

   Does not affect storage.

4 In **Number of Decimals for Output Display**, enter the number of decimal values that are displayed in reports and graphs.

   The number of decimal places displayed for outputs—between 0 and 6. Does not affect storage.

5 Click **OK**.

### Setting View Preferences

➢ To set view user preferences:

1 Access **User Preferences**.
2 On the View tab
3 Optional: Select Show Formula in Edit Bar to display formulas for calculated accounts.
4 Optional: Select View HSF Server Menu Items and Options to activate all client-server functionality.
   If the implementation is standalone, deselect to hide all client-server functionality. Restart the client for change to take effect.
5 Click OK.

**Setting Calculation Preferences**

- To set calculation user preferences:
  1 Access User Preferences.
  2 Select Calculations.
  3 Optional: Select Suppress Funds Flow Out of Balance to display “Funds Flow Out of Balance” errors when funds flows do not balance in historical periods.
  4 Optional: Select Auto Calculate Newly Created Scenario to enable or disable automatic scenario calculation.
  5 Optional: Select Suppress Zeros on Analyze to exclude empty cells from calculation and analysis.
  6 Click OK.

**Setting Global Assumptions Preferences**

- To set global assumptions user preferences:
  1 Access User Preferences.
  2 Select Global Assumptions.
  3 Optional: Select Display messages advising that file was updated by export to display messages when files are updated with global assumptions.
  4 Optional: Select Automatically accept import updates without prompting during import to bypass prompting the user to accept global assumptions changes.
  5 Click OK.
About Model Files and Templates

Create Strategic Finance models, also called entities, using templates that are financial model frameworks that contain predefined reporting and modeling standards. Templates enable you to analyze and consolidate business units and to model industry formats and you can password protect templates to prevent modifications. Entities are .alc files and templates are .alt files.

Oracle recommends using the default HSF Standard.alt template to create models.

The first step in creating models is to use the Time Period Setup Wizard to define your time structures that form the duration of the model. This includes selecting the lowest input level (weeks or months), and determining how to calculate aggregate periods (e.g. quarters, halves and years).
Converting Templates

If you upgraded to this release, you must convert your templates.

To convert templates:
1. Open a template in the Time Periods Setup Wizard.
   Specify .alt to list all templates.
2. Select File, then Save As to save updated templates.
3. Select Save Account Structure Only, and click OK.
4. Close the template and proceed to the Initial Time Period Wizard.

Creating and Opening Model Files

To create or open models:
1. Select File, then New.
2. Perform a task:
   - Select a template, click Open, and then select a custom or default template. The default template is in \Program Files\Hyperion\Strategic Finance
   - Sort files by type:
     - HSF — .alc files
     - Template — .atl
     - Consolidation — .cns
     - Entity Change Management — .ecm
     - Batch — .bch
     - HSF links — .asc
3. Define the period of time for the model.

Creating Files Using ASCII Link Files

Strategic Finance enables you to create a file directly from ASCII files. Note that file must share rules as a normal ASCII file import, with additional rules.

To create files using ASCII files:
1. Select File, and then Create From HSFLink File.
2. Select the ASCII file and click Open.
Defining the Model Duration

Before the wizard divides time structures into weeks or months, select the number of years and historical years in the model. After you complete the wizard, the time structure is generated and applied to the model.

To specify the model duration:

1. In **Total number of years in model**, enter the number of years in the model, including previous and forecasted years.
2. In **Number of historical years in model**, enter the number of previous years to include in the model. Specify at least one year.
3. Click **Next**.

   See “Specifying the Smallest Period of Time” on page 45.

Specifying the Smallest Period of Time

After the number of years is defined, the Initial Time Period Setup Wizard divides years into months or weeks. Selecting “Months” or “Weeks” defines the smallest native period in the model, which helps to construct the calendar for that model.

**Caution!** Once specified, you cannot change the type of calendar that are used by an entity.

To define the smallest period of time:

1. Select an option:
   - **Weeks**—Enter data by week. Monthly aggregates are calculated.
   - **Months**—Enter data by month. No weekly data exists.
2. Click **Next** and see the appropriate topic:
   - For **Weeks**, see “Handling Extra Days” on page 46.
   - For **Months**, see “Creating Monthly Time Periods” on page 45.

Creating Monthly Time Periods

To create monthly time periods:

1. Select an option:
   - **Calendar length**—Use the standard number of days in months.
     
     For example, January has 31 days. February has 28 in most years, but 29 in leap years. A year has 365 or 366 days. Quarters and halves are calculated based on the aggregate months, so quarters and halves will not have equal numbers of days.
Equal length—Have months consist of 30 days. Calculated quarters and halves will have equal numbers of days. Years have 360 days.

2 In First fiscal year in the entity ends in, define the fiscal year:
   - Month — Enter the last month of the fiscal year.
   - Year — Enter the first fiscal year.

3 Click Next.
   See “Extended Time Period Options” on page 48.

Handling Extra Days

If you select Weeks, you must define how weeks aggregate, as they do not divide evenly into months, quarters and years.

➢ To handle extra days:

1 Select an option:
   - Adding a 53rd week as needed—Adds extra weeks as needed
   - Ignoring them—Discards extra days. Years contain 52 weeks/364 days.

2 Click Next.
   See “Specify the Number of Months in a Year” on page 46.

Specify the Number of Months in a Year

With 52-week years, you must define how months add to a year.

➢ To select the number of months in a year:

1 Select an option:
   - 12 Months — Use 13 weeks per quarter. Months have an unequal number of weeks.
   - 13 Months — Use a 13-month year in which months contain the same number of weeks, and you specify the quarters that contain extra months.

2 Perform a task:
   - Click Next and see “Specifying the End of a 12 or 13 Month Fiscal Year” on page 47 if you selected:
     - Ignoring them
     - 12 Months
   - Click Next and see “Specifying the End of a 12 or 13 Month Fiscal Year” on page 47 if you selected:
     - Ignoring them
Specifying the End of a 12 or 13 Month Fiscal Year

To set the end of a 12 month year:

1. Under First fiscal year in the entity ends in, select:
   - Month — Enter the last month of the fiscal year.
   - Year — Enter the first fiscal year.

2. Click Next.

See “Assigning Weeks to Months” on page 48.

To set the end of a 13 month year:

1. Under First fiscal year in the entity ends in, define the time period ending the year:
   - Week — Enter the number of the first week.
   - Year — Enter the first fiscal year.

2. Click Next.

See “Assigning Months to Quarters” on page 48.

Specifying the End of a 53 Week Fiscal Year

In a 53-week year, you must define the last day of the fiscal year, and the month and year in which the day occurs. This is used to calculate the leap year. Every year has 364 days, but the leap-year has 371 days.

To set fiscal year end:

1. In Day of the Week, select the day of the week of the last day of the first fiscal year.

2. Indicate if the first fiscal year ends on the last day of the week (in a specific month) or on a day closest to the end of that month:
   - Last occurring in the month of — The first year ends on the last day of a month and year you choose. For example, if the year ends on Tuesday December 26, 2008, select Tuesday, Last occurring in the month of December for 2008.
   - Closest to the end of — The first year ends of the day of the month closest to its end. For example, selecting Tuesday, Closest to the end of: December 2007, ends the year January 2, 2008.
Required: Indicate a time:

- In Month, select the month in which the first fiscal year ends or the month closest to the end.
- In Year, select the first fiscal year.

3 Perform one:

- Click Next, see “Assigning Weeks to Months” on page 48 if you selected 12 Months.
- Click Next, see “Assigning Months to Quarters” on page 48 if you selected 13 Months.

## Assigning Weeks to Months

In 12-Month years, months contain 4 or 5 weeks. This means the year contains at least 52 weeks. Each quarter contains 13 weeks that are divided into two “4 week” months and one “5 week” month. To use this configuration, define the month that contains the 5th week.

To define the 5th week:

1 From Which month in each quarter will contain five weeks, indicate when the 5th week occurs. For example, if the week happens in the third month of the quarter, select The Third Month. To add the week using the same rule that assigns weeks to years, select Assign the extra week to a month using the same rule that’s used to assign weeks to years.

2 Click Next.

See “Extended Time Period Options” on page 48.

## Assigning Months to Quarters

A 13-month year has months that contain the same number of weeks, but it does not have an equal number of months in a quarter. In 13-month years, you must define which quarter contains the extra month.

To assign months to quarters:

1 Under Which quarter will contain four months indicate the quarter to contain the four months.

2 Click Next.

See “Extended Time Period Options” on page 48.

## Extended Time Period Options

To complete the Time Period Setup Wizard:

1 Click Extended Setup, and select:
Deal Periods — Create deal periods in which the Balanced Sheet is re-levered by the absence of time lapses.

Actual Periods — Define the historic time period

2 Click Finish.

Calculating the Days in a Year

You can determine the number of days in a year as follows:

- Using @yearlen = Year length
- Using @annualize = Account *

Working With Model and Template Files

Subtopics

- Saving Files
- Changing Languages
- Specifying File Summary Data Displayed in Reports
- Password—Protecting Files

Saving Files

You can only save files locally by selecting File, then Save As.

Changing Languages

If you use the standard template HSF_Standard.alt, you can display accounts names in these languages:

- 0x0409 en-US English
- 0x0c0a es-ES Spanish
- 0x0816 pt-BR Portuguese (Brazilian)
- 0x0407 de-DE German
- 0x0004 zh-CHS Chinese (Simplified)
- 0x0411 ja-JP Japanese

To change language:

1 Open an entity.
2 Select File, and then Import From File.
3 In Files of Type, select Account Names (*.xml).
Navigate to EPM_ORACLE_HOME\products\hsf\Client, and then select a language file:

- 0x0409 en-US English
- 0x0c0a es-ES Spanish
- 0x0816 pt-BR Portuguese (Brazilian)
- 0x0407 de-DE German
- 0x0004 zh-CHS Chinese (Simplified)
- 0x0411 ja-JP Japanese

Click OK.

Specifying File Summary Data Displayed in Reports

Summary Information enables you to specify basic information about files such as author, company, SIC code, currency, and global assumption data, that are used displayed reports.

To set summary information:

1. Open a file.
2. Select File and then Summary Information.
3. Most inputs are self explanatory, but note the following:
   - Comments
     Enter additional information about the analysis.
   - SIC Code
     The company SIC (industry classification) code that displays in reports.
   - Group ID
     The group performing the analysis, such as “Marketing”.
   - Default Currency:
     - Units —
       Default currency units: ones, thousands, millions, billions or trillions. All data, unless otherwise specified, is entered and displayed in the default units. Displays on reports.
     - Name
       Default currency name, for example: dollars, pounds, or yen. Displays on reports.
   - Global Assumptions — Provide the path to the global assumptions file updating the current file. When you click OK, the system links the current file with the global assumptions file, asking if it should update. Delete the filename and the system removes the link.
4. Click OK.
Password—Protecting Files

To secure files by specify file passwords:

1. Open a file.
2. Select File then File Management and then Access Control.
3. On Group Management, click Change under Password.
4. Enter and verify a password:
5. Click OK.

Working With Templates

When creating financial models, you select a template as the basis. Templates contain predefined financial, reporting, and modeling standards. You can customize templates to meet analysis and reporting needs. After you customize templates, use passwords to restrict modifications and ensure standardization.

Saving Files as Templates

You can save any Strategic Finance file as a template, and take advantage or use reporting and modeling standards developed in other models.

To save files as templates:

1. From Strategic Finance view, select File, then Open.
2. Open a file.
3. Select File, then Save As.
4. In Save as Type, select Template Files (*.alt).
5. In File Name, enter a name.
6. Click Save.
7. Select the financial model information from the file the template should contain:
   - Financial Accounts Only. Use only the accounts.
   - Financial Accounts and Time Periods. Use the account and time structures.
   - Financial Accounts, Time, and Data. Use the whole model.
8. Optional: If you did not enter a name for the template in Save As, enter a name in Template Name.
9. Click OK.

Note: If using Currency Translator, the exchange accounts are added to the forecast are deleted when you select the Financial Accounts Only or Financial Accounts and Time Period options. To save them with the file, select Financial Accounts, Time Periods and Data.
Customizing Templates

In templates, you can customize financial accounts, forecast methods, time periods and input values. You may want to customize account descriptions, specify input, print and group settings, and add subaccounts for additional detail. Template also specify forecast methods, which you change to reflect user preferences and standard company or industry practice. Change time periods to represent your company’s standards. There may even be cases where you want to save financial data values in a template.

To customize templates:

1. From any Strategic Finance view, select File then Open and select a template (*.alt) or file (*.alc).
2. Customize financial accounts, time periods, and/or input values.
3. Select File then Save As.
4. In Save As, enter a filename using the .alt extension.
5. Click OK.
6. In Save Template, select components.
   - Financial accounts are included. You can include time periods or time periods and data. Select Financial Accounts Only to include accounts only.
7. Click OK.

Controlling Local Access

Access Control enables defining group or Access Names, establishing passwords, and creating restrictions for local files. You can copy group and copy access privileges from other groups.

Within files, each group name must be unique. After groups are named, unique passwords can be created. The Admin group is a default group with access to everything. Administrators can attach passwords to single groups and for the full access group.

Local access control applies to files created and stored on local drives. Once files are copied to servers, they becomes entities subject to server access control, overriding local access control.

- “Access Control v/s Template Restrictions” on page 52
- “Creating Local Access Control Groups and Setting Group Management Restrictions” on page 53

Access Control v/s Template Restrictions

Before the Access Control feature, restrictions were controlled through Save Template restrictions. If Save Template restrictions exist, they are converted.

- “Files with Template Restrictions, but Without Passwords” on page 53
- “Files with Password Security” on page 53
- “Setting Access Control for Accounts” on page 54
Files with Template Restrictions, but Without Passwords

There are three Save Template restrictions: Financial Accounts, Time Periods, and Report Definitions. Files created from templates using these restrictions inherit them.

- Financial Accounts restricts Customizing, Subaccounting, Funding Options, and User-Defined Accounts.
- Time Periods restricts manipulation of time periods.
- Report Definitions restricts insert, delete, and formatting on reports.

If files containing these restrictions are converted and do not require passwords, these restrictions to control the file until access control is created for those files.

When at least one access group is established, Save Template are restrictions are overwritten by access control. When files convert, the restrictions remain, but only the default access group exists. Default access groups can change access levels in files.

Files with Password Security

Local passwords set in Save Template become Admin group passwords in Access Control.

Files Without any Security Measures

Files without template restrictions nor passwords convert normally. No access control groups are created, other than the Admin group. Anyone opening such files has full access.

Creating Local Access Control Groups and Setting Group Management Restrictions

Before managing access control, you must create groups and basic group access.

To create groups and group access:

1. From any Strategic Finance view, select File, File Management, then Access Control.
2. Click Add.
   - This accesses Add Group to create access groups.
3. In New Group, enter a name for the group. Names must be unique.
4. If a group has access settings similar to those for a group, select the group in Copy Access From, and the new group uses those settings.
5. Click Change to add and verify passwords for groups.
6. Click OK.
7. On Group Management, select to enable, or clear to restrict access options such as the ability to change inputs, account groups, and funding options.
8. Optional: Change account access.
See “Setting Access Control for Accounts” on page 54

9 **Optional:** Change Time Period access.

See “Setting Access Control for Time Periods” on page 54

10 **Optional:** Change Reports access.

See “Setting Access Control for Reports” on page 55

11 **Optional:** Change Dimensions access.

See “Setting Access Control for Dimensions” on page 55

12 **Click OK.**

---

**Setting Access Control for Accounts**

With user groups, you define access to accounts within the file for each group. You can also create account groups to manage bulk access to accounts for user groups.

For example, you may decide users in general can enter data, except for ten restricted accounts. In default, you select input options. You create an account group containing the ten restricted accounts. In the override section, you select that account group and deselect input options. When you give that file to users with the password, the restricted accounts are secure.

If you restrict access to a section of the file using groups, make sure you restrict the user’s ability to change the groups by deselecting the **Change Account Groups** item on **Accounts**.

➤ To set accounts access:

1 **From any Strategic Finance view, select File then File Management then Access Control.**

2 Select Accounts.

3 **Optional:** To set access for account groups, select one in **Permission Groups**.

   **Permission Groups** lists available Account Groups. The Default group contains all accounts not explicitly designated to Account Group.

   **Click Add to add account groups.**

4 **Click Add.** In **User Group**, select a group to display its settings.

5 Select to enable, or clear to disable options such as the ability to edit user defined accounts, delete subaccounts, and change forecast methods.

6 **Click OK.**

---

**Setting Access Control for Time Periods**

**Time Period** controls access to time periods. If a user or group does not use the **Change Time Period Information** option, time period editing is restricted.

➤ To set time period access:

1 **From any view, select File, then File Management and then Access Control**
2 Select Time.
3 In User Group, select a group to display its settings.
4 Select Change Time Period Information to enable options such as adding and deleting of time periods, label changes, and subperiod creation.
5 Click OK.

**Setting Access Control for Reports**

Report controls global access to report formatting commands.

imeline
To select reports access options:
1 From any view, select File then File Management and then Access Control
2 Select Report.
3 In User Group, select a user group to display its settings.
4 Select Global Permissions select to enable options that enable users to load default reports, move reports, and change number formatting.
5 Select to enable reports permissions such as the ability to edit and rename.
6 Click OK.

**Setting Access Control for Scenarios**

Scenario controls access to scenarios.

Timeline
To select scenario access options:
1 From any view, select File, and then File Management and then Access Control
2 Select Scenarios.
3 In User Group, select a group to display its settings.
4 Select Edit Scenarios to enable users to modify scenarios.
5 Click OK.

**Setting Access Control for Dimensions**

You can establish access restrictions to dimensions for user groups.

Timeline
To select the dimension access options:
1 From any view, select File, and then File Management and then Access Control
2 Select Dimensions.
3 In User Group, select a group to display its settings.
Select to enable, or clear to restrict, permissions such as the ability to create and, remove user defined dimensions.

**Changing Access Group Passwords**

You can secure user groups with passwords. Passwords must be unique between groups. Only one password can be null.

- To change user group passwords:
  1. From any view, select **File**, and then **File Management** and then **Access Control**
  2. Select **Group Management**.
  3. In **User Group**, select a group to display its settings.
  4. In **Password**, click **Change**.
  5. In **Enter Password**, enter a password.
  6. In **Verify Password**, reenter the password and click **OK**.
  7. Click **OK**.

**Deleting Access Control Groups**

You can delete user groups. The group you are logged in with can not be deleted.

- To delete a group:
  1. From any view, select **File**, and then **File Management** and then **Access Control**
  2. Select **Group Management**.
  3. In **User Group**, select a group.
  4. Click **Delete**.
  5. Click **OK**.
The Strategic Finance Server is a central repository for storing and sharing data. A server contains databases which contain entities. Entities are financial models you can check out and save to local hard drives as files. They may be created as local files (*.alc), checked-in to the Strategic Finance Server as entities (*.als).

Templates (*.alt) are also stored on the server. Templates are empty financial models for creating entities.

### Accessing Servers and Databases

#### Subtopics
- Logging on Servers
- Selecting Databases
- Selecting Servers
- Creating and Editing Server Connections

Before you can access databases on servers, your Strategic Finance Administrator must define your server account. Contact your Strategic Finance Administrator.

### Logging on Servers

This task also changes servers.

1. To log in:
   1. From any view, select Server and then Change Server.
   2. In Server, select a name.
Specify a user name and password.

3 **Optional:** Select Make Default to automatically access the selected server in the future.

4 Click **OK**.

**Note:** If you are logging in, select a database. See “Selecting Databases” on page 58.

### Selecting Databases

HSF entities are stored in databases.

- To select databases:
  1. From any view, select Server, and then Change Database.
  2. Under Select Database, select a name.
  3. **Optional:** Select Make Default to automatically access the selected database in the future.
  4. Click **OK**.

### Selecting Servers

When you access Strategic Finance, select a server.

- To select Strategic Finance servers:
  1. From any Strategic Finance view, select Server then Change Server.
  2. By Server, browse and select the server.
  3. **Optional:** To create server connections, click New.

      See “Creating and Editing Server Connections” on page 58.

  4. **Optional:** To edit server connections, select one in Server and click Edit.

      See “Creating and Editing Server Connections” on page 58.
  5. Click **OK**.

### Creating and Editing Server Connections

- To create or edit connections to Strategic Finance servers:
  1. From any Strategic Finance view, select Server then Change Server.
  2. By Server, click browse to select the server.
  3. Perform an action:
     - To create server connections, click New.
     - To edit server connections, select one in Server and click Edit.
In Address of Server on Network (IP or DNS), enter the server's network address.

In Protocol for Server Connection, enter the connection protocol.

In Port Number, enter the server's port number.

The Strategic Finance server uses this port for connections. Clients connect using this port number.

In Name for this Server Connection, enter a name for the server.

Must be unique.

Click OK.

Managing Entities

Subtopics

- Creating New Entities
- Storing Entities
- Copying Local Files to Servers
- Opening Entities
- Accessing Archive Data
- Checking In Entities
- Deleting Entities from Servers
- Saving Entities as Drafts
- Opening Drafts of Entities
- Releasing Locks

Entities are Strategic Finance files stored on network servers, providing centralized data access for multiple users.

Creating New Entities

The Create New Entity Wizard creates entities. New entities can be based on templates or entities in the database.

To create entities:

1. Select Server then Create New Entity.
2. In New Entity Name, enter a name for the entity.
   The name must be unique.
3. In Modeled On, enter the name of an entity on which to base the new one.
   Optional: Click Browse to search entities.
   - Selected—copies all data.
Storing Entities

➢ To select entity storage locations:

1 Create an entity.

   See “Creating New Entities” on page 59.

2 Select a location:
   ● Select Place at Root to store entities at the root level. Used for:
     ○ Standalone entities
     ○ Entity structure parents
   ● Deselect Place at Root to store entities as children, and select parents in New Entity will be a Child of the Selected Entity.

3 Click Finish.

Copying Local Files to Servers

Local Strategic Finance (.alc) files can be checked in to servers to be stored as entities.

➢ To copy local Strategic Finance files to servers:

1 Open a Strategic Finance file.

2 Select Server then Copy Local File to Server.

3 In New Entity Name, enter a unique name identifying the entity in the server.

   This name identifies the file from now on.

4 In File Name, enter the path to the local file.

   Optional: Click Browse to search.

5 Select a location:
   ● Select Place at Root to store entities at the root level. Used for:
     ○ Standalone entities
     ○ Entity structure parents
   ● Deselect Place at Root to store entities as children, and select parents in New Entity will be a Child of the Selected Entity.

6 Optional: Select Keep Local File's Data.
   ● Selected—stores the file and all data.
Deselected—stores only account and time period structure.

Click OK.

When prompted for a successful check in, click OK.

Opening Entities
Open entities stored on servers.

To open entities:

1. Select Server then Copy Local File to Server.
2. Under Name, select an entity.
3. Optional: Use Server Filters for faster response times by specifying the entity types for the list:
   - Optional: Select Show As Tree.
     - Selected—shows entities in parent-child relationships.
     - Tree mode is recommended, as it reduces list generation time by showing the top-level entities first, allowing you to open only those needed.
     - Deselected—shows entities flat.
   - Optional: In Entity Group Filter, enter entity groups, and only entities in those groups display.
     To enter multiple entity groups, use semicolons between names.
   - Optional: In Entity Filter, enter words or phrases to filter out entities without those words or phrases in the name.
     Select Starts With or Contains to determine where in the name the word or phrase occurs. To enter multiple entity groups, use semicolons between names.
   - Click Refresh to activate the search filter.
   - Optional: Click Save as Default to store the filter criteria.
     The criteria activate whenever you access Open Entity.
4. In Type, select a file type to display:
   - All (Entities and Templates)
   - Entities
   - Templates
5. Select Import Source Entity Data to import linked data.
6. Select an option:
   - To check out and then lock entities, select Check Out (lock)
   - To create isolated copies, select Open As Copy
7. Perform a task
To open entities, click OK.
To open entity archives, click Archive.
To open currency-translated versions of entities, click Translations.

### Accessing Archive Data

Accessing archive data allows users to view prior copies of entities. Archives are created when entities are checked in by the user or by a server process, such as consolidation, ECM, and ACM.

To open entity archives:

1. From any Strategic Finance view, select Server then Open Entity.
2. Under Name, select an entity.
3. Click Get Archive.
4. Under Open Archived Version - #, select an archive and click Open.

   - Open Archived Version - # displays archive numbers, check-in dates, and comments.
   - A warning displays giving you the option to convert the entity if its structure is not current.
5. Click OK.

### Checking In Entities

Checking in entities releases the locks and makes the entities available to others. The action is disabled if no entities are checked out.

To check in entities:

1. From any Strategic Finance view, select Server then Check In.
2. Optional: Enter comments in Comment.
3. Click OK.

   - Strategic Finance informs you if the check-in was successful and the lock released.

### Deleting Entities from Servers

Deleting entities from servers requires user ownership or Delete Entity access defined in the Strategic Finance Administrator. To establish ownership, launch the Strategic Finance Administrator, and select Entity, then Edit, then Ownership and specify yourself as the owner.

To delete entities from servers:

1. From any Strategic Finance view, select Server then Entity Structures.
2. In Get Structure File, select an entity.
3. In Chart View or Tree View, select the entity.
4 Select Edit then Delete Entity from Database.
5 When prompted click Yes.

**Saving Entities as Drafts**
You save entities as drafts if the financial model is a work-in-progress.

- To save entities as drafts:
  1 Select Server, then Save as Draft.
  2 Click OK when prompted the save has succeeded.

**Opening Drafts of Entities**

- To open drafts:
  1 From any Strategic Finance view, select Server, then Open Draft.
  2 Select a draft.
  3 Click OK.

**Releasing Locks**
If you lock an entity and other users need it, release the lock.

- To release entity locks:
  1 From any Strategic Finance view, select Server, then Release Lock.
  
  **Note:** Entities cannot be checked in after releasing locks.
  2 Select the entity, and click Release Lock.
  3 Click OK.

  Other can now access the entity.

**Viewing Server Information**

**Summary Information – Server Information** displays information the server and database connection.

- To set summary information:
  1 Open an entity.
  2 Select File, then Summary Information.
3 Select Server Information.
4 Click OK.

Linking Entities

HSF Links import data between entities.

➢ To create and HSF links:
1 Open the target entity.
2 Select File then Import and then From HSF Link.
3 Select Source Entities.
4 Click Add to add a source entity.
5 In Take Source data from, enter a source scenario.
6 In Put Source Data In, enter a target scenario.
7 Select an Input/Output Settings option.
8 Select an Historical/Forecast Settings option.
9 Select an account.

See “Selecting Accounts for HSF Links” on page 64.

Selecting Accounts for HSF Links

➢ To select accounts for HSF Links:
1 Access HSF Link.
   See “Linking Entities” on page 64.
2 Select Accounts.
3 In Source File, select the source entity.
4 In Accounts, select the source account.
   Optional: After selecting source accounts, select Show only selected accounts to display only selected accounts.
5 Select an Input/Output Settings option:
   • Use source entity’s default values
   • Use source entity’s input values
   • Use source entity’s output values
6 Click OK.
Note: Use Import Source Entity Data to import linked data when opening entities—see “Opening Entities” on page 61.

Displaying Server Log Files

These actions are logged on the server:

- Database exports
- Consolidation runs

To view log files:

1. From any Strategic Finance view, select Server then Log Files.
2. Select a log.
3. Click Show.

From a log file, you can print the file or save it as a .txt file locally on your computer.

4. Optional: Select a log and click Delete.
About Financial Accounts

The Accounts spreadsheet displays accounts in financial models. You enter data, company and account descriptions, scenario names, time period headings, account notes, and subaccounts on the Accounts spreadsheet. Financial data consists of historical results and forecast assumptions.

With subaccounts, you can create additional accounts aggregating into total accounts, and user-defined accounts. Account groups are used to group accounts together to make them easy to find and display when doing data entry.

Note: Cells containing global assumptions data, Accounts are not displaying data in red. Only change these cells to override the global assumptions.
Structure
Subtopics
- Input Accounts and Calculated Accounts
- Account Numbering

Input Accounts and Calculated Accounts
Strategic Finance accounts are Input or Calculated accounts. Input accounts are for manually entering data. Calculated accounts compute values with formulas using output from other accounts. You cannot convert accounts from one type to another except for User-defined Accounts.

- “Input Accounts” on page 68
- “Calculated Accounts” on page 68

Input Accounts
You manually enter financial data into Input accounts for historical and forecast periods. In forecast periods, use forecast methods or Freeform formulas to calculate values. Forecast methods dictate input data format in forecast periods. For example, if Sales uses the Growth Rate forecast method, you enter input data as a growth rate into the forecast periods.

Calculated Accounts
You cannot alter formulas in calculated accounts—they are fixed to retain accounting integrity. For example, the formula for the calculated account Net Income is modeled into Strategic Finance; you cannot change it. Net Income is calculated using data entered into other Income Statement accounts.

Account Numbering
Strategic Finance account numbers have three decimal-separated segments, separated by decimal points or periods:

- main account number (vxxxx.xx.xxxx)
- related account number (vxxxx.xx.xxxx)
- subaccount number (vxxxx.xxxxx)

See Table 1 on page 69:
Table 1 Account Numbering

<table>
<thead>
<tr>
<th>Main Account Number</th>
<th>Main Account</th>
<th>Related Account</th>
<th>Subaccount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000.00.000</td>
<td>main account</td>
<td>v2410.00.000</td>
<td>Intangibles</td>
</tr>
<tr>
<td></td>
<td>related account</td>
<td>v2410.01.000</td>
<td>Additions to Intangibles</td>
</tr>
<tr>
<td></td>
<td>related account</td>
<td>v2410.03.000</td>
<td>Amortization of Intangibles</td>
</tr>
</tbody>
</table>

Strategic Finance account structure groups all main accounts and related accounts together on the Accounts Spreadsheet. For example, the table below shows v2410.00, the main account for Intangibles, plus the .01 and .03 related accounts that are part of v2410:

- “Main Account Numbers” on page 69
- “Related Account Numbers” on page 70
- “Balance Sheet Related Accounts” on page 72
- “Funds Flow” on page 73
- “Adjustment Accounts” on page 73
- “Interest / Funding” on page 74

Main Account Numbers

These are the main accounts in typical Strategic Finance models:

<table>
<thead>
<tr>
<th>Main Account Number</th>
<th>Financial Account Grouping</th>
</tr>
</thead>
<tbody>
<tr>
<td>300.00.000 - 395.00.000</td>
<td>Memo Accounts</td>
</tr>
<tr>
<td></td>
<td>User Defined Accounts</td>
</tr>
<tr>
<td>1000.00.000 - 1999.09.999</td>
<td>Income Statement Accounts</td>
</tr>
<tr>
<td>2000.00.000 - 2999.09.999</td>
<td>Balance Sheet and Related Accounts</td>
</tr>
<tr>
<td>3000.00.000 - 3999.09.999</td>
<td>Funds Flow Statement and Tax Accounts</td>
</tr>
<tr>
<td>4000.00.000 - 4999.09.999</td>
<td>Cash Flow Accounts</td>
</tr>
<tr>
<td>5000.00.000 - 5999.09.999</td>
<td>Valuation Accounts</td>
</tr>
<tr>
<td>6000.00.000 - 7060.00.000</td>
<td>Financial Ratios, Custom Ratios and Debt Covenant Accounts. User Defined Accounts</td>
</tr>
</tbody>
</table>
Note: Income Statement expense accounts such as Amortization and Interest Income/Expense, having related Balance Sheet accounts such as Intangibles, Debt and Funding accounts, are not situated in the Income Statement grouping, but in the Balance Sheet grouping, with their related Balance Sheet accounts.

Related Account Numbers

Most Balance Sheet accounts have related accounts. They share a main account number, but are individually identified by the middle segment (vxxxx.xx.xxxx). Some Tax, Valuation, and Covenant accounts have related accounts.

<table>
<thead>
<tr>
<th>Suffix</th>
<th>Type of Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>vxxxx.00.xxx</td>
<td>Main account (usually Balance Sheet)</td>
</tr>
<tr>
<td>vxxxx.01.xxx</td>
<td>Related Funds Flow account, covenant actual account, tax and valuation</td>
</tr>
<tr>
<td>vxxxx.02.xxx</td>
<td>Acquisition accounts and covenant result accounts</td>
</tr>
<tr>
<td>vxxxx.03.xxx</td>
<td>Retirement, amortization and non-cash interest accounts</td>
</tr>
<tr>
<td>vxxxx.04.xxx</td>
<td>Tax, valuation and currency translation accounts</td>
</tr>
<tr>
<td>vxxxx.05.xxx</td>
<td>Interest accounts and dividends from subsidiaries</td>
</tr>
<tr>
<td>vxxxx.06.xxx</td>
<td>Minimum accounts. Funding Options only.</td>
</tr>
<tr>
<td>vxxxx.07.xxx</td>
<td>Maximum accounts. Funding Options only.</td>
</tr>
<tr>
<td>vxxxx.08.xxx</td>
<td>Increase in Maximum accounts. Funding Options only.</td>
</tr>
<tr>
<td>vxxxx.09.xxx</td>
<td>Balance Correction accounts. Funding Options only.</td>
</tr>
<tr>
<td>vxxxx.11.xxx</td>
<td>Issuance of non-acquisition debt. If you enter a value for the principal and the debt is non-acquisition related, the value in this account is added to debt in the main account. Debt Schedules only.</td>
</tr>
<tr>
<td>vxxxx.13.xxx</td>
<td>Total issuances. The sum of all acquisition-related and non-acquisition-related debt issuances. Debt Schedules only.</td>
</tr>
<tr>
<td>vxxxx.14.xxx</td>
<td>Debt Schedules only.</td>
</tr>
<tr>
<td>Suffix</td>
<td>Type of Account</td>
</tr>
<tr>
<td>------------</td>
<td>---------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>vxxxx.15.xxx</td>
<td>Payments actually made. These may deviate from scheduled payments in the form of recapture, funding options, or if they run below minimum debt. Debt Schedules only.</td>
</tr>
<tr>
<td>vxxxx.17.xxx</td>
<td>Maximum excess cash flow that may potentially be used for recaptured payments. Debt Schedules only.</td>
</tr>
<tr>
<td>vxxxx.18.xxx</td>
<td>Actual amount of recaptured cash paid to debt. Constrained by vxxxx.17.xxx. Debt Schedules only.</td>
</tr>
<tr>
<td>vxxxx.19.xxx</td>
<td>Total payments you can control in a given period. Debt Schedules only.</td>
</tr>
<tr>
<td>vxxxx.35.xxx</td>
<td>Non-cash adjustment for write-down to assets</td>
</tr>
<tr>
<td>vxxxx.50.xxx</td>
<td>Cash interest accrued. Debt Schedules only.</td>
</tr>
<tr>
<td>vxxxx.51.xxx</td>
<td>Cash interest expense. In a given period, the account value should be principal times rate, which change time. Debt Schedules only.</td>
</tr>
<tr>
<td>vxxxx.52.xxx</td>
<td>Cash interest paid. Debt Schedules only.</td>
</tr>
<tr>
<td>vxxxx.55.xxx</td>
<td>Cash interest entered. Debt Schedules only.</td>
</tr>
<tr>
<td>vxxxx.56.xxx</td>
<td>Interest rate after repricing. Debt Schedules only.</td>
</tr>
<tr>
<td>vxxxx.60.xxx</td>
<td>PIK interest accrued. Debt Schedules only.</td>
</tr>
<tr>
<td>vxxxx.61.xxx</td>
<td>PIK interest expense. Debt Schedules only.</td>
</tr>
<tr>
<td>vxxxx.62.xxx</td>
<td>PIK interest paid. Debt Schedules only.</td>
</tr>
<tr>
<td>vxxxx.65.xxx</td>
<td>PIK interest rate. Debt Schedules only.</td>
</tr>
<tr>
<td>vxxxx.70.xxx</td>
<td>Unamoritzed issue cost. Treated as a non-current asset. Debt Schedules only.</td>
</tr>
<tr>
<td>Suffix</td>
<td>Type of Account</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| vxxxx.71.xxx | Change in unamortized issue cost.  
Debt Schedules only. |
| vxxxx.75.xxx | Amortization of issue cost.  
A non-cash item. You can control where this appears on an income statement.  
Debt Schedules only. |
| vxxxx.80.xxx | Unamortized premium or discount.  
When bonds are issued at more of less than face value, the issue must record a premium or discount.  
Debt Schedules only. |
| vxxxx.81.xxx | Change in unamortized premium or discount.  
Debt Schedules only. |
| vxxxx.85.xxx | How the premium or discount is amortized.  
Debt Schedules only. |
| vxxxx.97.xxx | Current portion of long-term debt.  
The current portion is the amount of debt to be paid within the next 12 months.  
Debt Schedules only. |
| vxxxx.98.xxx | Long-term portion of long-term debt.  
The long-term portion is the total minus the current portion. A reporting-only item.  
Debt Schedules only. |
| vxxxx.99.xxx | Used to trigger the calculation of an account with a debt schedule.  
Debt Schedules only. |

**Balance Sheet Related Accounts**

Accounts relating to the balance sheet:

- “Funds Flow Accounts” on page 72
- “Non-Cash Adjustment Accounts” on page 73
- “Interest and Funding Accounts” on page 73

**Funds Flow Accounts**

All Balance Sheet accounts.

vxxxx.01.xxx

- Increase in Accounts Receivable
- Additions to Land
**Non-Cash Adjustment Accounts**

Selected Balance Sheet accounts only.

vxxxx.03.xxx

- Fixed Asset Retirements
- Amortization
- Non-Cash Interest

**Interest and Funding Accounts**

Interest bearing accounts only.

vxxxx.05.xxx and vxxxx.06.xxx

- Interest on Marketable Securities
- Minimum Balance on Long Term Debt

**Funds Flow**

All balance sheet accounts have at least one related account — Funds Flow (.01).

Funds Flow accounts measure change in the related Balance Sheet account from one period to the next. Funds Flow accounts drive the Cash Flow Reports and the Funds Flow Statement.

Related Funds Flow accounts are automatically calculated in historical periods by subtracting the Balance Sheet amount in the prior period from the current period.

<table>
<thead>
<tr>
<th>Account</th>
<th>Activity</th>
<th>Value Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>v2020.00.000</td>
<td>Accounts Receivable (current)</td>
<td>$675</td>
</tr>
<tr>
<td>v2020.00.000</td>
<td>Accounts Receivable (prior)</td>
<td>minus (-) 525</td>
</tr>
<tr>
<td>v2020.01.000</td>
<td>Change in Accounts Receivable</td>
<td>$150</td>
</tr>
</tbody>
</table>

In forecast periods, you may forecast the ending Balance Sheet amount (.0 account) or the Funds Flow amount (.1 account). Whichever you select, the other is calculated based on the forecasted account’s output.

**Adjustment Accounts**

Some Balance Sheet accounts contain .03 adjustment accounts for increasing or decreasing the primary balance sheet account value by non-cash amounts (e.g., Amortization of Intangibles decreases the Intangibles account balance).

Non-cash adjustment accounts in Strategic Finance include amortization and retirement accounts. For example, Intangibles (2410.00.000) is a Balance Sheet account containing a related Funds Flow account, Additions to Intangibles (2410.01.000), and an adjustment account, Amortization of Intangibles (2410.03.000). When forecasting the Additions to Intangibles, the
Intangibles balance increases in the forecast periods, and the balance for Intangibles decreases in the forecast periods by the amount in the adjustment account, Amortization of Intangibles.

<table>
<thead>
<tr>
<th>Intangibles</th>
<th>v2410.00</th>
<th>main account</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additions to Intangibles</td>
<td>v2410.01</td>
<td>related Funds Flow account</td>
</tr>
<tr>
<td>Amortization of Intangibles</td>
<td>v2410.03</td>
<td>related Non-Cash adjustment</td>
</tr>
</tbody>
</table>

In some templates, asset and liability accounts have related “Acquired” cash flow accounts (v2XXX.02), representing balance sheet account changes caused by special investing transactions (e.g. acquisition or mergers.)

**Interest / Funding**

Interest-bearing and funding accounts have related accounts for interest associated with Balance Sheet account and funding minimums.

<table>
<thead>
<tr>
<th>Notes Payable</th>
<th>v2520.00</th>
<th>Main Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in Notes Payable</td>
<td>v2520.01</td>
<td>Funds Flow Account</td>
</tr>
<tr>
<td>Interest on Notes Payable</td>
<td>v2520.05</td>
<td>Interest Expense Account</td>
</tr>
<tr>
<td>Minimum Notes Payable</td>
<td>v2520.06</td>
<td>Minimum Funding Account</td>
</tr>
</tbody>
</table>

**Entering Account Data**

Subtopics

- Changing Account Names
- Data Formats
- Entering and Editing Data on the Accounts Spreadsheet
- Entering and Editing Data with Account Input
- Entering ‘#’ or ‘##’ Overrides
- Finding and Replacing Data
- Entering Ranges of Data with Linear Values or Historical Averages
- Using Cell Text
- Printing Account Information
- Protecting Account Input Status
- Changing the Historical Averages of Accounts
- Finding Accounts

You enter account data (historical values, project forecast assumptions, and estimate valuation assumptions) in the Accounts spreadsheet or reports. You customize financial accounts to match financial statements you are analyzing, add account detail, change the order in which accounts display, and select accounts for display in reports. To enter negative values, start the value with a minus sign (-).
Changing Account Names

In Strategic Finance, financial accounts have standard names. You can modify them to reflect descriptions in your analysis by entering names over those in the Accounts spreadsheet. Name changes appear in all reports.

Data Formats

Strategic Finance reliably stores and manipulates numbers containing up to 16 significant digits, before and/or after the decimal point. You can change the number of decimal places displayed. See “Formatting Numbers” on page 383.

Entering and Editing Data on the Accounts Spreadsheet

To enter data within accounts:

1. Select the Accounts view.
2. Click a cell, or use the arrow keys to move the cursor to a cell.
3. Enter data.
4. Press Enter or move the cursor to enter the data.

Note: To override values, see “Entering ‘#’ or ‘##’ Overrides” on page 76.

Entering and Editing Data with Account Input

Changes made using Account Input appear immediately in the Accounts view and reports, and in financial statements after you recalculate.

To enter data using Account Input:

1. On the Accounts view, select a cell.
2. Select Accounts then Account Input.
3. In Account Input, select an account.
4. Enter data.

The data enters in the model when you select accounts or click Close.

Note: To override values, see “Entering ‘#’ or ‘##’ Overrides” on page 76.
Entering ‘#’ or ‘##’ Overrides

On the Accounts worksheet or in Account Input, you can enter ‘#’ or ‘##’ into a cell to override current values.

**Note:** The ‘#’ and ‘##’ overrides are not valid for use within historical time periods unless those periods are calculated using Freeform Formulas.

Finding and Replacing Data

To use Find and Replace:

1. From any Strategic Finance view, select the Accounts view.
   - From Accounts view, select an Account, then Rename Related Accounts.
2. Select Edit, then Find & Replace.
3. In Search For text, enter a term, which can be words and/or numbers.
4. Select one:
   - Find — Locates the term.
   - Replace With — Locates and replaces the term with another.
5. Under Search select:
   - All — Search the entire model.
   - Range — Search part of the model.
6. Optional: Select Match case, and the action is case-sensitive.
7. Click OK.
8. Perform an action:
   - Click Replace to replace one instance of the term.
   - Click Replace All to replace all instances of the term.
   - Click Find Next to skip an instance.
   - Click Close.

Entering Ranges of Data with Linear Values or Historical Averages

On the Accounts spreadsheet, enter data in cell ranges based on historical averages or by indicating starting values and increments.
To enter data in cell ranges:

1. In the Accounts view, highlight a range of cells.
2. Select Edit, and then Fill.
3. Select an option:
   - Historical Average—Bases data on the historical average.
   - Linear—Starts the range at one value and adjusts through time:
     - Start Value—Enter the value for the first highlighted period.
     - Step Value—Enter the amount (negative or positive) to adjust the value for each successive time period.
4. Click OK.

Using Cell Text

To insert and edit notes:

1. On the Accounts spreadsheet, select a cell or account.
2. Perform a task:
   - Create notes—Select Accounts, then Cell Text, and then Insert
   - Edit notes—Select Accounts, then Cell Text, and then Edit
3. In Cell Text, enter or modify notes.
4. To include notes in reports, select Display in Reports.
5. Click OK.

Deleting Cell Text

To delete notes:

1. Select Accounts.
2. Select cells or accounts containing notes.
3. Select Accounts, then Cell Text, and then Delete.

Printing Account Information

To print account information:

1. On the Accounts spreadsheet, select an account.
2. Select File, and then Print Account Information.
3. Select the information to print.
4 In Max Number of Columns on Report, enter a number. The Approximate number of rows on report heading displays the number of rows.

5 Click OK.

**Protecting Account Input Status**

You can change the input status of accounts. Turn OFF accounts, which are not in use.

**Note:** To maintain accounting integrity, Strategic Finance does not enable you to turn 6 input accounts off. These accounts are on: Gain on Sale of Assets (1170), Unrealized Tax Benefit of Losses (1620), Excess Marketable Securities (2015), L-T Debt: Excess (2690), Unrealized Benefit of Tax Loss (3242), and Proceeds from Asset Sales (4000).

➢ To write protect accounts:

1 From any Strategic Finance view, select Accounts then Account Input Status.

2 Select the Accounts spreadsheet.

3 Change input status of accounts:
   - Input enabled
     To enable input, select accounts in the list.
   - Write-protected
     You can change the input status of an account by not selecting the accounts from the list. However, by doing this, you can turn the account input status to Write-protected mode, when you are not using it.

4 Optional: To find accounts, click Find Accounts. See “Finding Accounts” on page 79.

5 Optional: To reorder the accounts list, select an option under Order by and click Refresh:
   - Account Number—Lists accounts by number.
   - Checked Accounts—Lists only input-enabled accounts.

6 Optional: To change historical averages, see “Changing the Historical Averages of Accounts” on page 78.

7 Click OK.

**Changing the Historical Averages of Accounts**

➢ To change historical averages of accounts:

1 From any Strategic Finance view, select Accounts, then Account Input Status.

2 Select Historical Average.
3 Under Numbers and/or Name, locate the account row.

4 Under Historical Average, select an option for the account row:
   - Default
     The default historical average is taken from the Years for Historical Average setting in Time Periods. Applied to all accounts in the model, unless overwritten here.
   - All
     Includes all time periods in the model in the historical average.
   - Any number
     There is a number for each time period in the model. Select one, and the historical average includes periods from the beginning up to that number.

5 Click OK.

Finding Accounts

To locate accounts:

1 Click Account Number Search.

2 Optional: Select a Find option:
   - Account Name
   - Account Number

3 Optional: Select a Type:
   - Starts with—Searches for accounts beginning with the word(s) or number(s) you enter in Search for.
   - Contains—Searches for accounts containing the word(s) or number(s) you enter in Search for.

4 In Search for, enter text or numbers to search.
   As you enter values, Strategic Finance generates the list.

5 Double-click an account.
Working with Subaccounts

Subtopics

- Adding and Maintaining Subaccounts
- Deleting Subaccounts
- Modifying Subaccount Descriptions
- Creating Subtotals
- Autonumbering Subaccounts
- Renumbering Single Subaccounts
- Renumbering Multiple Subaccounts
- Renaming Related Accounts
- Items Transferring to Renumbered Subaccounts

You create subaccounts for additional input detail in main accounts. For example, you can subaccount SG & A Expense (1080) to display two different expense categories: SG & A Expenses (1080.00.010) and Research & Development (1080.00.020). Subaccounts inherit attributes of main accounts in both historical and forecast periods.

Adding and Maintaining Subaccounts

When you subaccount Income Statement accounts (1000 level), you produce one subaccount. When subaccounting Balance Sheet accounts (2000 level), related accounts are automatically subaccounted.

Subaccounts add detail to the standard financial accounts. Each subaccount appears in the Accounts spreadsheet and in respective financial statements. When you subaccount a financial account that has related accounts, all of the related accounts are subaccounted automatically.

To add subaccounts

1. On the Accounts view or a report, select an account.
2. Select Accounts, then Subaccounts.
3. Select a main account in Main Account.
   Lists all main accounts available for subaccounting. You can find accounts by entering the first few characters of the name in Main Account to sort.
4. Enter a subaccount number in Subaccount to Add/Modify.
   Enter the number or click the arrows to select one. You can create up to 999 subaccounts to main accounts.
5. Click Add.
6. In Subaccount to Add/Modify, enter a subaccount name or description.
7. To associate subaccount descriptions and numbers:
   - Click the check mark.
   - Press Enter.
**Optional:** Select Required Element to define the subaccount as a required element.

Required element subaccounts cannot be deleted or renumbered.

- Required element subaccounts roll-up all subaccounts into a subtotal.
- You cannot add Subaccounts above the highest required element.

**Note:** The Strategic Finance Administrator may give users special access permissions to change required elements.

**Note:** You can not add subaccounts to calculated accounts. You can create additional detail for calculated accounts. For example, to add accounts displaying details for the calculated account, insert a User Defined account containing formulas calculating the account into the Income Statement.

### Deleting Subaccounts

You can delete subaccounts.

- To delete subaccounts:
  1. On the Accounts view or a report, select an account.
  2. Select Accounts, then Subaccounts.
  3. In Main Account, enter the name of the main account.
  4. In All Subaccounts, select the name the subaccount.
  5. Click Delete.

### Modifying Subaccount Descriptions

You can edit subaccount descriptions.

- To modify subaccount descriptions:
  1. On the Accounts view or in reports, select an account.
  2. Select Accounts then Subaccounts.
  3. In Main Account, select a main account.
  4. In All Subaccounts, select a subaccount.
  5. In Subaccount to Add/Modify, enter changes.
  6. Click the check mark or press <Enter>. 
Creating Subtotals

The Subtotal dialog displays the subaccount to be subtotalled. Defining a subaccount as a Subtotal turns the account into a calculated account.

To create a subtotal:
1. On the Accounts view or Report view, select the account to subtotal.
2. Select Accounts, then Subaccounts.
3. In Main Account, select a main account.
4. In All Subaccounts, select a subaccount.
5. Click Subtotal.
6. Select subtotal options:
   - Subtotal Starting after Previous or Main Account — Adds the subaccounts listed above it in All Subaccounts until reaching another subtotal or main account.
   - Subtotal Starting at Subaccount — Designates a subaccount number to being the subtotal. Enter the subaccount number in the input box.
7. Click OK.

Autonumbering Subaccounts

Use Autonumber to create multiple subaccounts in batch. Select a starting point, the number of subaccounts to create, and a counting increment to define a pattern to use in creating and numbering the subaccounts. You can apply the pattern to many accounts through a multi-select list box.

When you create accounts, the following applies:
- The first subaccount inherits rules from the main account.
- You may have subaccounts outside autonumber patterns. The pattern is not saved, so you can add other subaccounts later.
- Autonumber applies for subaccounts of a main account. For example, if you create accounts using autonumber, and have subaccounts, subaccounts are created if the pattern is valid.

To autonumber subaccounts:
1. In Subaccount Options, select a subaccount and click Autonumber.
   See “Adding and Maintaining Subaccounts” on page 80
   Autonumber displays.
2. Under Apply Pattern to, select the main account to subaccount.
   Click Find Accounts to search accounts.
3. Under Subaccount Pattern, define the numbering system:
- In **Number of Subaccounts**, enter a number of subaccounts to create.
- In **Beginning Number**, enter the starting number.
- In **Increment**, enter the increment between successive numbers.

4. **Optional: Click Forecast.**

Because subaccounts inherit the main account forecast method, the autonumber interface enables access to **Forecast Method**, so you can change forecast methods before adding subaccounts.

5. **Click Run.**

**Autonumber** validates for two potential problems:
- It ensures subaccount patterns do not exceed 999.
- It checks to see if subaccounts exist using those numbers. For example, if subaccount 026 exists and you create a pattern beginning with subaccount 006, incrementing by 5 for up to 10 subaccounts, subaccount 026 can be overwritten. Because this validation may bring up numerous accounts, they are written to a log file.

6. **Click Close.**

This closes **Autonumber** and returns you to **Subaccount Options**. The patterns displayed are not saved.

### Renumbering Single Subaccounts

Use **Renumber Subaccount** to change a subaccount number and all of its references in the model, freeing previous numbers for reuse.

- **To renumber one subaccount:**
  1. **In Subaccount Options**, select a subaccount and click **Renumber**.

     See “Adding and Maintaining Subaccounts” on page 80

  2. **Select Single.**

  3. **Current Main Account** lists the current main account name.

     Read-only.

  4. **Under Current Subaccount Number** select a subaccount to renumber.

  5. **Under New Subaccount Number**, enter a subaccount number.

     Use numeric characters only.

  6. **Optional: To renumber multiple accounts**, see “Renumbering Multiple Subaccounts” on page 84

  7. **Click Apply** to make the changes.

     Strategic Finance validates the subaccount number is unused.

  8. **Click Close.**
Renumbering Multiple Subaccounts

Use the Renumber Subaccount—Multiple tab to renumber many accounts simultaneously.

To renumber multiple subaccounts:

1. On Subaccount Options, select a subaccount and click Renumber.
   See “Adding and Maintaining Subaccounts” on page 80.

2. Select Multiple.
   Current Main Account lists the current main account name. Read only.

3. In Starting Subaccount Number, enter the first subaccount number in the range.

4. In Ending Subaccount Number, enter the last subaccount number in the range.
   This number must be higher than the starting subaccount number.

5. In New Starting Subaccount Number, enter a subaccount number.
   This is the starting number. For example, if you renumber subaccounts 1 through 5 and start at 7, Strategic Finance renumbers the subaccounts 7 through 11.

6. Click Apply.
   Strategic Finance validates if the subaccount number is not currently in use. If one of the renumbered subaccount numbers is in use, the process fails. The original subaccount numbers remain.

7. Click Close.

Renaming Related Accounts

To rename related accounts:

1. In Subaccount Options or on the Accounts view, select a related account.

2. Perform a task:
   - From Accounts view, select Accounts, then Rename Related Accounts.
   - From Subaccount Options, click Rename.

3. In Find what, enter an account name to rename.
   - Click Find Next to find the account.
   - Match whole word only—Looks for the exact word or phrase.
   - Match case—Makes the task case-sensitive.

4. In Replace with, enter an account name.

5. Perform an action:
   - Click Replace to replace the only account name currently shown.
   - Click Replace All to replace account name instances with the new name.
Items Transferring to Renumbered Subaccounts

Subtopics

- Account Description
- Forecast Method
- Input Values
- UDA Attributes
- Custom Settings
- Funding Options
- Scenario
- Graphing
- Dimensional Membership
- Reports
- Global Assumptions
- Formula References

Many original subaccount attributes transfer to the new number, including: account descriptions, forecast methods input values, UDA attributes, custom settings (for example: group inclusion, input flag), funding options settings, scenarios, graphing, dimensions, and report placement.

**Account Description**

The original subaccount's description applies to the renumbered account.

**Forecast Method**

The original subaccount’s forecast method and/or Freeform Formula transfers to the renumbered account. Other Freeform settings transfer to the renumbered subaccount, such as: the description of method, input as, units, use in history, and enable overrides.

**Input Values**

The original subaccount’s Input values transfer to the renumbered subaccount.

**UDA Attributes**

If you are renumbering user-defined accounts, all attributes set in User Defined Accounts transfer to renumbered subaccounts. See “UDA Attributes” on page 85.

**Custom Settings**

Custom settings include group selections and account on/off status.
Funding Options

Funding option settings inherited by renumbered subaccounts include: instrument type (debt accounts only), zero based, no maximum, specify minimum, minimum change value, surplus, deficit, and funding order.

See “Using the Standard Funding Method” on page 133

or

See “Using the Target Capital Structure Funding Method” on page 134.

Preferred Stock allocation also transfers to renumbered subaccounts.

Scenario

If the original subaccount is part of a scenario, the renumbered subaccount belongs to the same scenarios.

Graphing

If the original subaccount is a data point in a graph, the renumbered subaccount replaces it in that graph.

Dimensional Membership

Renumbered subaccounts inherit dimensions from the original accounts.

Reports

References to the original subaccount in reports update to reference the renumbered subaccount. The new subaccount number retains formatting such as bold, italics, font, number format, border, pattern, alignment, color, and so on.

Global Assumptions

With Global Assumptions, renumbered subaccounts are handled differently depending on if it is in the global assumptions file or a target file.

When renumbering subaccounts in the global assumptions file, Strategic Finance updates the global assumptions export list to include the renumbered account.

- “Renumbering in the Global Assumptions File” on page 86
- “Renumbering in Global Assumptions Target Files” on page 87

Renumbering in the Global Assumptions File

When renumbering subaccounts in the global assumptions file, Strategic Finance updates the global assumptions export list to include the renumbered account.
Renumbering in Global Assumptions Target Files

When renumbering subaccounts in target files, there are two circumstances:

* If the target file has not yet been populated with global data, but Summary Information lists a global file.
  
  See “Specifying File Summary Data Displayed in Reports” on page 50, renumbering occurs as it would in any other case. However:
  
  - If you do not select Add subaccounts to target file, you receive an error message indicating that an account identified in the global map does not exist in the target file.
    
    See “Setting Global Assumptions Options” on page 301, you receive an error message indicating that an account identified in the global map does not exist in the target file.
  
  - If you do select Add subaccounts to target file, the new account in the global file is added to the target file.

* If a target file has received global data and you renumber a subaccount that has received global data, Strategic Finance warns that a mapped account is about to be renumbered.
  
  - If you cancel, the task is aborted.
  
  - If you continue, it breaks the global assumption mapping to the original account number. You can verify this on the Accounts view by red highlights in the input cell.
    
    There is a general warning message that there is a problem regarding global assumptions.

Formula References

If the original subaccount number was used in formulas, all references to the original are updated for the renumbered subaccount.

Account Dependencies

Subtopics

- Using Analyze
- Analyze Symbols
- Using “Where Used”

Using Analyze

Analyze drills down from the account line or the output line on the Accounts spreadsheet to see how the value is calculated. The heading displays the entity name and current scenario as follows: Analyze <entity or file name>(<scenario name>)

To use Analyze:

1. Highlight an account or value.
2 Double-click the cell.

3 Optional: Click a toolbar buttons to analyze different account elements:
   - Forecast — Access Forecast Method — see “Selecting Predefined Forecast Methods” on page 104 and “Specifying Basic Forecast Method Options” on page 106.

4 Optional: In Analyze, double-click a formula component to analyze it further:
   - When you drill down to Account Input, you can change historical and forecast values, be sure to recalculate for input changes and save to retain the data.
   - Valid values in conditional statements are highlighted.

5 Close the initial Analyze dialog.

### Analyze Symbols

This table lists symbols used in Analyze. Values of $x$ represent account names.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>- &gt;</td>
<td>Take</td>
</tr>
<tr>
<td>&lt;= &gt;</td>
<td>Function</td>
</tr>
<tr>
<td>+</td>
<td>Addition</td>
</tr>
<tr>
<td>-</td>
<td>Subtraction</td>
</tr>
<tr>
<td>*</td>
<td>Multiplication</td>
</tr>
<tr>
<td>/</td>
<td>Division</td>
</tr>
<tr>
<td>^</td>
<td>To the power of</td>
</tr>
<tr>
<td>-(x)</td>
<td>Subtracted from</td>
</tr>
<tr>
<td>/(x)</td>
<td>Divided into</td>
</tr>
<tr>
<td>^(x)</td>
<td>Is the exponent of</td>
</tr>
<tr>
<td>+/-</td>
<td>Change sign</td>
</tr>
<tr>
<td>!</td>
<td>Not</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>&amp;</td>
<td>And</td>
</tr>
<tr>
<td>&lt;</td>
<td>Is less than</td>
</tr>
<tr>
<td>&gt;</td>
<td>Is greater than</td>
</tr>
</tbody>
</table>
Using “Where Used”

Where Used is a forward audit trail, identifying the accounts that depend on other accounts. You select accounts and calculate all scenarios, and Where Used tracks the accounts using the selected accounts.

To use Where Used to identify account dependencies:
1. From the Accounts spreadsheet, select Accounts then Where Used.
2. Optional: To list only financial accounts in Available Accounts, select Show Accounts Only.
   If this option is not selected, informational accounts such as Company Name and Default Currency are listed.
3. In Available Accounts, select an account and click >>.
4. Optional: to limit the calculation to only the scenario currently selected in the model, select Calculate Current Scenario Only.
5. Click Run.
6. In Where Used, view dependent accounts.
7. Optional: To store the results as a .txt file, click Save.

Using User-Defined Accounts

Subtopics
- Using Memo Accounts
- Using Custom Ratio Accounts
- Using Debt Covenant Accounts

User defined accounts add flexibility to your analysis. There are three types of user defined accounts:
- Memo Accounts—these create additional detail in the financial accounts. See “Using Memo Accounts” on page 90
- The Custom Ratio—these create additional ratios for your analysis. See “Using Custom Ratio Accounts” on page 91.
• Debt Covenant—these define measures within Custom Ratios testing against performance standards (debt covenants). See “Using Debt Covenant Accounts” on page 92.

## Using Memo Accounts

Memo Accounts calculate and store data for formulas other accounts. There are 20,000 possible memo accounts in Strategic Finance—(300.00.000, 305.00.000... 395.00.000). You assign relationships between Memo Accounts and other accounts as needed—they initially have no account relationships.

For example, you could use two Memo Accounts to model annual sales based on a price vs. quantity relationship. You enter the price of the item in one Memo Account, and the quantity sold in the second. To see the result of this relationship, you create a Freeform Formula in the Sales Account (v1000) multiplying the two Memo Accounts.

Each of the 20 Memo Accounts can be subaccounted 999 times, for a total of 19,980 possible Memo Accounts containing additional account detail necessary to complete your analysis.

Memo Accounts and their subaccounts both enable:

- changing account descriptions
- entering data
- changing forecast methods
- attaching account notes

You can turn the display of Memo Accounts on and off from Account Input Status. Memo accounts are not used in calculations on financial statements unless you reference them in a forecast method or historical formula.

To use Memo Accounts:

1. Select Accounts then User Defined Accounts.
2. In Select Account, select Memo.
3. Under the Select Account options, select an account.
   To add Memo Accounts or change their names, do so from the Accounts Spreadsheet or Subaccounts dialog.
4. Under Value is, specify how to enter data values. For example, select Calculated by formula in all periods to input formulas.
5. Specify the Calculate aggregate period value as option:
   - Last interim period value (i.e., Balance Sheet)
   - Sum of interim periods (i.e., Income Statement)
   - Weighted average based on the financial account you select from the account drop-down list. (i.e., discount rate)
   - None applies the formula in aggregate periods. (i.e., ratios)
Note: These rules also apply to the calculation of dimensional parents.

6 Select the Output Type:

- Currency
- Items
- Percent
- Ratio

Note: If you select Calculated by formula, all Output Types are available. If you select Input in history, the Output Types are limited to Currency and Items.

7 Optional: If the Output Type is Currency or Items, the account output values can be shown in a denomination other than the Default Currency Units.

You override the default setting by selecting an Output Units option:

- Ones
- Tens
- Thousands
- Millions
- Billions
- Trillions

8 Click OK.

Using Custom Ratio Accounts

Strategic Finance automatically calculates 34 ratios. You can also use 10 Custom Ratio accounts (6400.00.000 through 6445.00.000) for customized calculations. Use Custom Ratio accounts to enter formulas that is used to calculate your own ratios. Custom Ratio accounts can be subaccounted 999 times to create additional Custom Ratios.

The Financial Ratios report displays all ratios calculated in an analysis—Custom Ratio accounts appear at the bottom. This enables you to distinguish between ratios defined by Strategic Finance and your individual ratios.

Formulas you can use to create Custom Ratios are similar to the Freeform Formula forecast method. You can use constant numbers or values from other accounts in Custom Ratio formulas. You can also use different functions in the formula.

To use Custom Ratio accounts:

1 From any Strategic Finance view, select Accounts, then User Defined Accounts.
2 In User Defined Account, select Ratio.
3 Select a ratio account from the drop-down list.
To add ratio accounts or change descriptions, access the Accounts view spreadsheet or Subaccount Options dialog.

4 In Value is, enter a ratio.

Custom Ratios are calculated by a formula in all periods. Click Build.

5 Specify the Calculate aggregate period value as option:
   - Last interim period value (i.e., Balance Sheet)
   - Sum of interim periods (i.e., Income Statement)
   - Weighted average based on the financial account you select from the account drop-down list. (i.e., discount rate)
   - None applies the formula in aggregate periods.

6 Select the Output Type:
   - Currency
   - Items
   - Percent
   - Ratio

   **Note:** Select Calculated by formula, and all Output Types are available. Select Input in history, and Output Types are limited to Currency and Items.

7 Optional: If the Output Type is Currency or Items, the output value of the account can be shown in a denomination other than the Default Currency Units.

You override the default setting by selecting an Output Units option: Ones, Thousands, Millions, Billions, or Trillions.

8 Click OK.

**Using Debt Covenant Accounts**

In Strategic Finance, you can establish measures testing an entity’s ability to meet performance standards. Use user-defined Debt Covenant accounts to enter your debt covenant requirements for testing entities.

There are 5 Debt Covenant accounts (v6500, v6505, v6510, v6515 and v6520). Each of these accounts can have up to 999 subaccounts to accommodate all the covenants in your analysis.

To accommodate the required inputs and outputs for covenant tests each Debt Covenant account has two related accounts, giving you a total of three related accounts:
   - Test (.00): An account to accommodate the covenant test parameter.
   - Actual (.01): An account to accommodate the actual performance equation.
   - Result (.02): An account to accommodate the difference between the test parameter and the actual performance equation.
When you subaccount Debt Covenant accounts, all related accounts also receive subaccounts, enabling you to automatically create additional Debt Covenant Test Parameter accounts, actual performance equation accounts, and result accounts.

Debt Covenant accounts are accessible from the User Defined Accounts dialog, so that the output type and units can be selected (e.g., currency in millions). Debt Covenant accounts are displayed on the bottom of the Funding Analysis Report. You can insert the Debt Covenant accounts on reports by using the Edit, Insert command.

- “Covenant Test Parameter Account” on page 93
- “Actual Performance Equation” on page 93
- “Covenant Result Account” on page 93
- “Entering Covenant Test Parameters” on page 94
- “Entering Covenant Actual Performance Equations or Result Formulas” on page 94

**Covenant Test Parameter Account**

This input account is accessible from the Accounts Spreadsheet view or the Account Input dialog. Enter a test parameter amount for each period in the file (e.g., Working Capital of $200MM in 1995, $250MM in 1996, etc.). You can enter different test parameters from period to period. In the User Defined Account dialog, you can select the output type and units.

**Actual Performance Equation**

This account is accessible from the User Defined Accounts dialog. Enter formulas measuring the actual performance of the analysis. (e.g., Working Capital = Current Assets - Current Liabilities, using the formula v2100 - v2600). Select the output type and units.

**Covenant Result Account**

This account is accessible from the User Defined Accounts dialog, and calculates the difference between the test parameter and actual performance results, or vice versa. It measure the result of how the entity performs relative to the covenant test. To model a “minimum” test (e.g., Minimum Working Capital), enter a formula that requests the “Actual-Test” accounts:

\[(v65xx.01 - v65xx.00)\].

Results display as a negative numbers if covenants are not met (actual is less than the test parameter).

To model “maximum” tests (e.g., Minimum Debt/Equity), enter formulas representing, the “Test-Actual” accounts:

\[(v65xx.00 - v65xx.01)\].

Results display as negative numbers if covenants are not met, and Actual is greater than the Test parameter.
Entering Covenant Test Parameters

➢ To enter covenant test parameters:

1. On Accounts, select the Covenant Test accounts (v6500.00 - v6520.00).
2. Change the account name to match your analysis.
   In this example change the name to ‘Working Capital Test’ and change the two related account names to ‘Working Capital Actual’ and ‘Working Capital Result’.
3. Using Account Forecast, change the forecast method to reflect the test parameter data format.
   In the example, enter or forecast working capital in Specified Currency.
4. Enter the test parameter data in all periods.
   In the example with four years, enter 100, 150, 200 and 250 respectively.
5. Select Accounts, then User Defined Accounts.
7. Select the Output Type (currency) and Output Units.

Entering Covenant Actual Performance Equations or Result Formulas

➢ To enter covenant actual performance equations or result formulas:

1. Select Accounts, then User Defined Accounts.
3. Under Value is, leave the setting at Calculated by formula in all periods.
4. Enter a formula for the covenant under Formula, using the same formula format as the Custom Ratios.
   You can also enter ratio accounts in formulas. For this example, enter this formula: v2100 - v2600.
5. Select Output Type (currency) and Output Units.

Creating and Displaying Account Groups

Subtopics

● Creating Account Groups
● Adding Accounts to Account Groups
● Displaying Account Groups

Use Account Groups to manage accounts in bulk. For example, you can create a group containing all Income Statement accounts with data input. You also use Account Groups to select which accounts currently display on the Accounts view.
Creating Account Groups

To create account groups:

1. From Strategic Finance worksheet, select Accounts, then Account Groups.
2. In Account Groups, select General.
3. Click the New (Insert) .
4. Under The New Group is a... on Type of New Group, select an option and click OK:
   - List of Accounts—Creates groups of accounts.
   - List of Groups—Creates groups of account groups.
   - Account Separator—Creates a line to separate groups in a list.
5. When the group appears in Available Groups, enter a unique name.
6. Optional: To change the group display order in Available Groups and View on the Accounts view, select a group and click the up and down arrows.
7. In Header, enter the heading for the group to be displayed on the Accounts view.
8. Optional: Click Hide Group from Filter in Accounts View to hide the group on the Accounts view.
9. In Default Dataview, select the dataview for display by default when accessing the group.
10. Add accounts.
    See “Adding Accounts to Account Groups” on page 95.
11. Click OK.

Adding Accounts to Account Groups

Subtopics

- Adding Accounts to Account Groups
- Adding Accounts to Account Groups from the Accounts Tab Right-Click Menu
- Adding Accounts to Account Groups by Cutting or Copying and Pasting

Adding Accounts to Account Groups

To add accounts to account groups:

1. Create an account group.
   See “Creating Account Groups” on page 95.
2. From Account Groups, select Account List.
3. In Group, select a group.
4. Optional: If a group has accounts that should be in the new group, click Copy Group.
5 **Optional:** You use permission groups to allow an administrator to set access permissions for all accounts in the group, select **Permission Group**.

Assign the account group to the user group.

See “Creating Local Access Control Groups and Setting Group Management Restrictions” on page 53.

6 In **Available Accounts**, select and add accounts to the group in **Selected Accounts**.

**Note:** This box lists accounts belonging to groups. Accounts appear on the **Accounts** view in the order they appear in this list.

Add accounts as follows:
- In **Available Accounts**, double-click on accounts.
- Browse to the account. See “Finding Accounts” on page 79.

Options to narrow your search:
- In **Search for Accounts containing**, enter keywords to filter out other accounts in **Available Accounts**.
- Select **Display only ‘Main’ accounts in list** to filter out all subaccounts and dimensions in **Available Accounts**.

7 **Optional:** Reorder selected accounts as they display in the **Accounts** view by selecting accounts in **Selected Accounts**, and clicking the up and down arrows.

8 **Optional:** Specify how subaccounts display by selecting an option from **Subaccounts**.

- **None**—Displays only main accounts.
- **All Input Accounts**—Displays only input subaccounts, not main accounts or subtotaled subaccounts.
- **All Input and Main Accounts**—Displays input subaccounts and main accounts, not subtotaled subaccounts.
- **All**—Displays input subaccounts, main accounts, and subtotaled subaccounts.

9 **Optional:** Specify dimension display from **Dimensions**:

Dimensions determine the display of dimensions when adding main accounts. Available only when **All subaccounts are selected in Subaccounts**:

- **None**—Displays no dimensions.
- **All Input Accounts**—Displays input dimensions, not main dimensional accounts or subtotaled dimensional subaccounts.
- **All input and Main Accounts**—Displays input dimensions and main dimensional accounts, not dimensional subtotaled subaccount.
- **All**—Displays input dimensions, main dimensional accounts, and subtotaled dimensional subaccount.
Optional: Select Include subaccounts for user-defined accounts to add the subaccounts of user-defined accounts.

Optional: Select Include accounts that have been turned off to add inactive accounts.

Click OK.

Adding Accounts to Account Groups from the Accounts Tab Right-Click Menu

You can add accounts to account groups while on Accounts.

To add accounts to account groups from the Accounts spreadsheet right-click menu:

1. In Group, select an account group.
2. On the spreadsheet, select the account line above which to add an account.
3. Right-click and select Add Accounts to Group.
4. In Find Accounts, select an account.
   See “Finding Accounts” on page 79.
5. Click OK.

Adding Accounts to Account Groups by Cutting or Copying and Pasting

You can add accounts to account groups by copying or cutting and pasting.

To add accounts to an account group on Accounts by cutting or copying and pasting:

1. In Group, select the group containing the source account.
2. In the Accounts spreadsheet, select an account.
3. Right-click and select Cut Accounts or Copy Accounts.
4. In Group, select the name of the target group.
5. Select the account line above which to add the accounts.
6. Right-click and select Paste Accounts.

Displaying Account Groups

After creating account groups, they are available in the Accounts view.

To display account groups, select a group in Groups.

Dataviews

Dataviews filter and manipulate the amount of data displayed on the Accounts view, and you select them from Dataview.
There are three dataviews:

- Standard—displays standard accounts.
- Input Only—displays input accounts.
- Output Only—displays output accounts.

You can create custom dataviews displaying data according to your needs.

- “Creating and Maintaining Dataviews” on page 98
- “Adding Time Periods to Dataviews” on page 99
- “Naming or Renaming Dataviews” on page 99

**Creating and Maintaining Dataviews**

You modify and create dataviews in **Create Dataview**.

1. On the **Accounts** view, select **View**, and then **Dataviews**.
2. Select **Create Dataview**.
3. Optional: You can select, remove, rename, and reorder dataviews.
4. To create dataviews, click **New**.
5. Select **Display Group Header as Titles** to display Account Group headings.
6. Select **Hide Input Row if a Calc Account** to conceal input rows of calculated accounts.
7. Select **Hide Forecast Row if a Calc Account** to conceal forecast methods of calculated accounts.
8. Select account attributes:
   - **Available Account**
     - Select attributes in the **Available Account** column and click **Add** to include it in the dataview.
     - **Output Row**—Display outputs
     - **Input Row**—Display inputs
     - **Forecast Row**—Display forecast methods or freeform formula descriptions
   - **Selected Account Attributes**—Display or remove account attributes
9. Click **Blank Row** to insert rows between accounts.
10. Add time periods to the dataview.
    
    See “Adding Time Periods to Dataviews” on page 99.
11. Click **OK**.
Adding Time Periods to Dataviews

Use Time Periods of Dataview to determine which Time Periods are displayed for each Dataview.

To add time periods to dataviews:

1. Access Dataviews and select a dataview.
   See “Creating and Maintaining Dataviews” on page 98.

2. In Dataview, select Time Periods.
   Dataview displays the name of the currently selected dataview.

3. Optional: Select Hide Calculated Period Column to hide calculate time periods.

4. Select time periods to display:
   - All Time Periods
     Displays all time periods.
   - Only History
     Displays historical periods only.
   - Only Forecast
     Displays forecast periods.
   - Set Time Range
     Displays periods in a specified range:
     - In Beginning Boundary, enter a formula to set the first period in the range.
     - In Ending Boundary, enter a formula to set the last period in the range.
     - Click Build to build formulas. See “Building Time Formulas” on page 338.

5. Click OK.

Naming or Renaming Dataviews

In Dataview to Create or New Dataview Name, enter a name and click OK.
About Forecast Methods

Subtopics

- Accessing Forecast Methods
- Entering Data for Predefined Forecast Methods
- Selecting Predefined Forecast Methods
- Specifying Basic Forecast Method Options
- Specifying Advanced Forecast Method Options
- Entering Forecast Methods as Freeform Formulas
- Using Grid Pricing

Create your own, or use the forecast methods provided to project account values in forecast periods.

Accessing Forecast Methods

➢ To access Forecast Method:

1. On the Accounts view, place your cursor on an account.
2. Select Accounts, then Account Forecast.
Entering Data for Predefined Forecast Methods

Subtopics

- As Actual Value
- Growth Rate
- Growth Rate (Year over Year)
- Percent of Another Account
- Percent of Prior-Period Account
- Percent of Change in Another Account
- Percent of Average Account
- Days
- Turns
- Absolute Multiple of Another Account
- Default Multiple of Another Account

As Actual Value

Enter data as the actual value as defined by the default currency units.

Growth Rate

You can enter an annual or a periodic growth rate. For example, for Sales growth of 10% per year, enter a 10 for the forecast period input.

Growth Rate (Year over Year)

Enter data as a growth rate over the same period one year prior. For example, if January 2003 Sales are to be 5% higher than January 2002 Sales, enter 5 in January 2003.

Percent of Another Account

Enter data for one account as a percent of another account (Associated Account) in the same period. For example, for Cost of Goods Sold as 46% of Sales, enter 46 for the forecast period input.

If you select this option, you must specify the Associated Account specified in the Forecast Method dialog.

Caution!

When calculating an account, you may get a message that says you cannot use the Associated Account specified because it is calculated after the main account. For example, to enter Cash as a percentage of Total Assets, you must use the forecast method called Percent of Prior Period Account.
**Percent of Prior-Period Account**

Enter data for one account as a percent of another account in the prior period. For example, Depreciation Expense can be entered as a percent of the prior-period ending balance of Fixed Assets. If you select this option, you must specify the Associated Account, which you choose in the Associated Account section of the Forecast Method dialog.

**Percent of Change in Another Account**

Enter data for one account as a percent of the increase in another account. For example, the Increase in Accounts Receivable can be entered as a percent of the change in Sales. If you select this option, you must specify the Associated Account, which you choose in the Associated Account section of the Forecast Method dialog.

**Percent of Average Account**

Enter data for an account as a percent of the average value of another account during the current and prior periods. This option can be used to forecast interest based on the average debt balance. The calculation engine in Strategic Finance supports certain iterative calculations, such as interest averaging and tax carryback/carryforward calculations. For example, Interest on Notes Payable can be entered as a percent of the average value of Notes Payable during the current and prior periods.

If you select this option, you must specify the Associated Account, which you choose in the Associated Account section of the Forecast Method dialog.

**Days**

Enter data for an account as the number of days (typically of sales or cost of goods sold) which this item represents. It is most commonly used for working capital balances, such as receivables and payables forecasting.

**Note:** When forecasting using the Days method, do not select **Increase in method** on the Account Forecast dialog.

If you select this option, you must specify the Associated Account, which you select in the Associated Account section of the Account Forecast dialog. The Annualize Associated Account option is automatically turned on and the **Input is...** section is set to Annual. Strategic Finance uses the correct time period handling in this calculation (e.g., monthly A/R is calculated based on annualized sales, etc.).

So, if you elect to forecast Accounts Receivable in Days of Sales, your Accounts Receivable balance is calculated as follows in each forecast period:

\[(\text{Input for Days / No. of Days in Period}) \times \text{Sales} = \text{Accts. Receivable Balance}\]
**Turns**

Enter data for an account as the number of turns (how often the balance turns over) this item represents. This method is most commonly applied to inventory forecasting.

**Note:** When forecasting using the Turns method, do not select the Increase in method in the Forecast section in the Forecast Method dialog.

If you select this option, you must specify the Associated Account, which you select in the Associated Account section of the Forecast Method dialog. The Input is... section is automatically set to Periodic. If you select this option, you must specify the Associated Account, which you select in the Associated Account section of the Forecast Method dialog.

If you elect to forecast Inventories using the Turns method and you select Cost of Goods Sold as the Associated Account calculation, your Inventories balance is calculated as follows in each forecast period:

\[
\text{Annualized Value of Cost of Goods Sold / Input for Turns}
\]

**Absolute Multiple of Another Account**

Enter data for one account as an absolute multiple of another account (Associated Account) in the same period. This method is primarily used for price/quantity forecasting. For example, you might forecast unit volume (100 million units) in a Memo Account (v300) and calculate revenue as a unit price of $50 (absolute multiple) times unit volume in the Memo Account (v300).

If you select this option, you must specify the Associated Account, which you select in the Associated Account section of the Forecast Method dialog.

**Default Multiple of Another Account**

Enter data for one account as a default currency unit multiple of another account (Associated Account) in the same period. This method is also primarily used for price/quantity forecasting. For example, you might forecast unit volume (10 units) in a Memo Account (v300) and calculate revenue as a unit price of $20 million (default multiple) times unit volume in the Memo Account (v300).

If you select this option, you must specify the Associated Account, which you select in the Associated Account section of the Forecast Method dialog.

**Selecting Predefined Forecast Methods**

See “Accessing Forecast Methods” on page 101.

- To select predefined forecast methods:
  1. Select **Structured**.
Note: Ensure you are on the correct tab when you click OK. If you are on the Structured tab, Structured values apply. If you are on the Freeform tab, the Freeform formula applies.

2 In Forecast, select a method.

The method determines the format of your input data.

See “Entering Data for Predefined Forecast Methods” on page 102.

3 Optional: Select Input is:

The input for the account being forecast is Annual or Periodic. Useful when forecasting items like interest rates.

4 Optional: Select an Associated account.

- Use Associated Account to select the value to use for the Associated Account’s output if you select one of the following:
  - Percent of Another Account
  - Percent of a Prior-Period Account
  - Percent of a Change in Another Account
  - Percent of Average Account
  - Days
  - Turns
  - Absolute Multiple of Another Account
  - Default Multiple of Another Account

- Browse to the account.

- In the Take Associated Account’s output, select the value to use for the Associated Account’s output:
  - Current period
  - Prior period
  - Change in
  - Average

5 Select Match Dimensions to match the dimension of the associated account with the dimension of the account being forecast.

For example, to forecast Cost of Goods Sold/Product XX/Region YY as a percent of Sales/Product XX/Region YY, choose Sales as the associated account and check Match Dimensions.

6 Optional: If you are forecasting a balance account, you can forecast the ending balance or the change in the ending balance from the prior period (Change in).

7 Optional: Select Advanced for more options.

See “Specifying Advanced Forecast Method Options” on page 106.

8 Click OK.
Specifying Basic Forecast Method Options

To select a Forecast Method option:

1. Access Forecast Method.
   - See “Accessing Forecast Methods” on page 101.
2. Select Structured.
3. Optional: Click Options to display additional forecast method options on Forecast Method Options.
   - You can select to the current forecast method from the drop-down list.
4. Click OK.

Specifying Advanced Forecast Method Options

When you click Advanced, additional options become available. To hide additional options, click Basic.

See “Accessing Forecast Methods” on page 101.

To Select Advanced Forecast Method options:

1. On Forecast Methods, click Advanced.
2. Optional: Select an Associate Account value is option:
   - Unadjusted
   - Annualized
   - Normalized
3. Optional: Select a Forecast period input values are option:
   - Variable in each period
   - Constant for all periods
   - Enter the same input value in all forecast periods.
   - Equal to the historical average
   - Enter a value equal to the historical average.
   - Use this option to indicate that the input for this field varies, enabling you to increment or decrement a contract interest rate based on selected criteria. See “Forecasting Data Types” on page 109.
● Edit Grid

Click to specify accounts and criteria for grid pricing. See “Forecasting Data Types” on page 109.

5 Optional: Select Spread over another account:

● Adds the input value to another account's output value to for the actual input.

● Spread Account

With Spread over another account, select the spread account.

6 Click OK.

Note: Be sure you are on the Structured tab when you click OK, ensuring the predefined forecast method is entered.

See Also

“Using Freeform Formulas” on page 335
“Using Grid Pricing” on page 108
“Forecasting Data Types” on page 109

Entering Forecast Methods as Freeform Formulas

➢ To enter a Freeform Formula:

1 Access Forecast Method.

See “Accessing Forecast Methods” on page 101.

2 Select Freeform.

3 In Formula, enter Freeform formulas calculating output values for selected accounts.

See “Using Freeform Formulas” on page 335.

4 In Description of Method, enter formula descriptions for display.

5 Optional: For formulas using @input, from Input as select the format of the input data.

Input data used in the Freeform formulas is entered in the Accounts view or in the Account Input dialog:

● Currency

Enter input data using the option set in Units.

● Items

Enter input data using option set in Units.

● Percent

Enter input data as a percentage. Useful for tax rate formulas.

● Ratio
Enter input data as a ratio.

- **Days**

Enter input data as a number of days. When this input type is chosen, the input must be as a multiplied by another account to produce the output value.

- **Turns**

Enter the input data as the number of turns. The input must be multiplied by another account to produce the output value.

6. **For formulas using @input, select the input data unit specifications (thousands, or millions, for example) from Units.**

7. **Select Use in History to use Freeform formulas in historical periods.**

   For example, you may select Use in History to calculate Sales as Price x Quantity in both history and forecast.

   If this option is not selected, the Freeform formula is used only in forecast periods and historical data must be input separately.

8. **Select Enable Overrides to enable currency overrides in input fields.**

   In input periods, the selected input method can be overridden to enable input of that period's value as Default Currency/Items. To override the input method, enter a pound sign (#) before or after the number.

---

**Using Grid Pricing**

Grid Pricing enables you to model varying interest rates over time by incrementing or decrementing rates based on company performance against a metric.

➤ To use grid pricing:

1. **Access Forecast Method.**

   See “Accessing Forecast Methods” on page 101.

2. **Select Structured.**

3. **From Forecast, select Forecast Method.**

4. **Click Advanced.**

5. **Select Using grid pricing.**

6. **Click Edit Grid.**

7. **In Base Grid Pricing on, browse to or select a criteria account.**

   This account becomes the metric for measure.

8. **In Comparison to use, select how to compare to the criteria account:**

   - Less than
   - Less than or equal to
9 In Adjust by, select an adjustment type:
   - Adding
   - Subtracting

10 In Reprice, select the frequency of calculation. The system adjusts rates at the beginning periods.
   Options:
   - Annually
   - Semi-annually
   - Quarterly
   - Monthly

11 In the Grid Pricing table, click Add to create rows. Then click in cells to enter values:
   - Criterion in Millions of Dollars
     In this column, enter the value of the criteria in the same scale as the account.
   - Adjustment in Percent
     This column is the effect on the rate, as a decimal. For example, if the rate rises a quarter of a point, enter .25.
   - To delete, select a row and click Delete.
   - To reorder, select a row and click the arrows.

12 Click OK.

Forecasting Data Types

Subtopics
- Entering Gross Fixed Assets
- Entering Gross Fixed Assets in Historical Periods
- Forecasting Gross Fixed Assets
- Accumulated Depreciation
- Interest Accounts
- Tax Rates
- Taxable Income
- Deferred Taxes
- Historical Averages

Entering Gross Fixed Assets

Three financial accounts together calculate gross fixed assets: Gross Fixed Assets (v2170.00), the Gross Book Value of Retired Assets (v2170.03) and Fixed Capital Investment (v2170.01). Fixed
Capital Investment represents all capital expenditures for new and replacement equipment, discretionary and non-discretionary.

### Entering Gross Fixed Assets in Historical Periods

In historical periods, you input historical values of Gross Fixed Assets (v2170.00) and Capital Expenditures (v2170.01). Gross Retirements (v2170.03) is calculated. In historical periods, the calculation for these accounts follows:

<table>
<thead>
<tr>
<th>Operation</th>
<th>Gross Fixed Assets (beginning)</th>
<th>Input</th>
<th>$100</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Capital Expenditures</td>
<td>Input</td>
<td>50</td>
</tr>
<tr>
<td>-</td>
<td>Gross Fixed Assets (ending)</td>
<td>Input</td>
<td>130</td>
</tr>
<tr>
<td></td>
<td>Gross Retirements</td>
<td>Calc</td>
<td>$20</td>
</tr>
</tbody>
</table>

### Forecasting Gross Fixed Assets

**Subtopics**

- Gross Fixed Assets account
- Gross Retirements account

#### Gross Fixed Assets account

Forecasting the ending balance of Gross Fixed Assets results in Gross Retirements being calculated as:

<table>
<thead>
<tr>
<th>Operation</th>
<th>Gross Fixed Assets (beginning)</th>
<th>Input</th>
<th>$100</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Capital Expenditures</td>
<td>Input</td>
<td>50</td>
</tr>
<tr>
<td>-</td>
<td>Gross Fixed Assets (ending)</td>
<td>Input</td>
<td>130</td>
</tr>
<tr>
<td></td>
<td>Gross Retirements</td>
<td>Calc</td>
<td>$20</td>
</tr>
</tbody>
</table>

#### Gross Retirements account

Forecasting Gross Retirements results in Gross Fixed Assets being calculated as:

<table>
<thead>
<tr>
<th>Operation</th>
<th>Gross Fixed Assets (beginning)</th>
<th>Input</th>
<th>$100</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Capital Expenditures</td>
<td>Input</td>
<td>50</td>
</tr>
<tr>
<td>-</td>
<td>Gross Retirements</td>
<td>Input</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Gross Fixed Assets (ending)</td>
<td>Calc</td>
<td>$130</td>
</tr>
</tbody>
</table>
This method assumes only fully depreciated assets are retired, enabling you to independently forecast actual amounts of retirements and the amount of Fixed Capital Investment in all future periods.

**Accumulated Depreciation**

Subtopics
- Entering Accumulated Depreciation
- Entering Accumulated Depreciation in Historical Periods
- Accumulated Depreciation in Forecasts

**Entering Accumulated Depreciation**

Three financial accounts together calculate accumulated depreciation: Accumulated Depreciation (v2190.00), Accumulated Depreciation on Retirements (v2190.03) and Depreciation Expense (v2190.01). Depreciation Expense represents all depreciation expenses on all fixed assets.

**Entering Accumulated Depreciation in Historical Periods**

In historical periods, you input historical values of Accumulated Depreciation (v2190.00) and Depreciation Expense (v2190.01). Accumulated Depreciation on Retirements (v2190.03) is calculated. In historical periods, the calculation for these accounts is as follows:

<table>
<thead>
<tr>
<th>Operation</th>
<th>Accumulated Depreciation (beginning)</th>
<th>Input</th>
<th>$70</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Depreciation Expense</td>
<td>Input</td>
<td>30</td>
</tr>
<tr>
<td>-</td>
<td>Acc Depreciation on Retirements</td>
<td>Input</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Accumulated Depreciation (ending)</td>
<td>Calc</td>
<td>$90</td>
</tr>
</tbody>
</table>

**Accumulated Depreciation in Forecasts**

In forecast periods, you forecast accumulated depreciation using these options:
- “Forecasting Accumulated Depreciation” on page 111
- “Forecasting Accumulated Depreciation on Retirements” on page 112

**Forecasting Accumulated Depreciation**

Forecasting the ending balance of the Accumulated Depreciation account results in Accumulated Depreciation on Retirements being calculated as:
### Forecasting Accumulated Depreciation on Retirements

Forecasting Accumulated Depreciation on Retirements results in the Accumulated Depreciation account balance being calculated as:

<table>
<thead>
<tr>
<th>Operation</th>
<th>Accumulated Depreciation (beginning)</th>
<th>Input</th>
<th>$70</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Depreciation Expense</td>
<td>Input</td>
<td>30</td>
</tr>
<tr>
<td>-</td>
<td>Accumulated Depreciation (ending)</td>
<td>Input</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>Acc Depreciation on Retirements</td>
<td>Calc</td>
<td>$10</td>
</tr>
</tbody>
</table>

This method assumes all Retirements are fully depreciated, enabling you to independently forecast actual amounts of depreciation associated with retirements and the amount of depreciation expense in all future periods.

### Interest Accounts

Interest income and expense can be entered in detail manner or summary. For example, interest expense can be entered as a total summary amount or the detail can be displayed and forecasted for each debt instrument on the Balance Sheet.

Interest can be entered as a total amount in history, with detail forecasted based on a percentage of the current period, prior period, or average debt or investment balances. This is due to the fact that historical interest information is usually summarized, while interest in forecast periods can be detailed using rates applied to debt and investment balances.

- “Interest Summary Accounts” on page 112
- “Specific Interest Accounts” on page 113
- “Non-Cash Interest” on page 113

### Interest Summary Accounts

Interest Income (v1210.00) can be used to summarize total interest income in history and/or forecast. This account can also be used for other interest income.

Interest Expense (v1360.00) can be used to summarize total interest expense history and/or forecast. This account can also be used for other interest expense.
Specific Interest Accounts

Specific interest accounts are each related to a specified debt or investment account, so in forecast periods, you can forecast interest income and expense based on debt and investment balances. Any of the 10 predefined forecast methods or the Freeform Formula method can forecast interest. You can apply one of these methods:

- Percent of Another Account
- Percent of Prior Period Account
- Percent of Average Account

where the Associated Account for each interest account is the related debt or investment account and percentages entered are interest rates. When debt or investment accounts are subaccounted, related interest accounts are subaccounted, enabling forecasting interest rates for different debt and investment accounts.

Specific interest accounts and related debt/investment accounts are:

<table>
<thead>
<tr>
<th>Account</th>
<th>Name</th>
<th>Assoc. Acct.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010.05</td>
<td>Interest on Marketable Securities</td>
<td>2010.00</td>
</tr>
<tr>
<td>2015.05</td>
<td>Interest on Excess Mkt. Securities</td>
<td>2015.00</td>
</tr>
<tr>
<td>2460.05</td>
<td>Interest on L-T Funding Asset</td>
<td>2460.00</td>
</tr>
<tr>
<td>2510.05</td>
<td>Interest on Curr. Portion of LTD</td>
<td>2510.00</td>
</tr>
<tr>
<td>2520.05</td>
<td>Interest on Notes Payable</td>
<td>2520.00</td>
</tr>
<tr>
<td>2660.51</td>
<td>Interest on L-T Debt: Scheduled</td>
<td>2660.00</td>
</tr>
<tr>
<td>2690.05</td>
<td>Interest on Long-Term Debt: Excess</td>
<td>2690.00</td>
</tr>
</tbody>
</table>

Non-Cash Interest

Non-Cash Interest Expense (v2660.03) calculates non-cash portions of interest expense on scheduled debt accounts. Non-cash interest typically takes the form of zero coupon (deep discount) debt or PIKs (Payments in Kind). In history, enter Non-Cash Interest as a dollar amount. In forecast, enter this item as a rate (using the Percent of Prior Period Account forecast method) or as a default currency amount, depending on the forecast method you choose.

Amounts entered into this account reflect as part of total interest expense and accrue to the related scheduled debt account, Long-Term Debt: Scheduled (v2660.00) in the forecast periods.

Note: If the forecast methods Percent of Another Account or Percent of Average Account forecast Non-Cash Interest Expense, a circular reference occurs when calculating because the current period-ending balance of L-T Debt: Scheduled is calculated based on Non-Cash Interest Expense.
**Tax Rates**

- “Trial Provision for Income Taxes (v1610.00)” on page 114
- “Deferred Provision for Income Taxes (v1660.00)” on page 114
- “Temporary Differences (v3120.00)” on page 114
- “Interest Tax Shield (v3220.00)” on page 114
- “Tax on Non-Operating Profit (v3230.00)” on page 115
- “Residual Value Tax Rate (v4.00.560 and v5.00.800)” on page 115

**Trial Provision for Income Taxes (v1610.00)**

This account measures the amount of taxes paid to taxing authorities. In historical periods, enter a currency amount. In forecast periods, enter the percentage of taxable income paid in taxes. Strategic Finance multiplies this rate by Taxable Income (v3140.00) to arrive at the taxes to be paid.

**Deferred Provision for Income Taxes (v1660.00)**

This account measures the amount of taxes paid on temporary differences when they reverse. In periods where book income exceeds taxable income, the deferred provision is positive. In periods where taxable income exceeds book income, the deferred provision is negative. In historical periods, enter a currency amount. In forecast periods, enter the tax rate in effect when the temporary differences are scheduled to reverse. Generally, this is the same rate as in v1610 unless a new rate is enacted but is not yet effective.

**Temporary Differences (v3120.00)**

This account measures the differences between book and taxable income that reverses in future periods. In historical periods, enter a rate. Strategic Finance divides Deferred Provision for Income Taxes (v1660.00) in a given historical period by this rate to determine the amount of temporary differences that gave rise to the deferred provision. Generally, it is the statutory tax rate in effect in that period. It is important to know temporary differences in historical periods since it is a key component of Taxable Income (v3140.00). In forecast periods, this is calculated.

**Interest Tax Shield (v3220.00)**

This account measures the tax benefit of having debt. In historical periods, enter a currency amount. In forecast periods, enter the marginal tax rate, which is the tax rate to be paid on the last dollar of income. This be the rate used in v1610.00. Strategic Finance multiplies this rate by Total Interest Expense (v1420.00) to determine the interest tax shield.
**Tax on Non-Operating Profit (v3230.00)**

This account measures the tax liability on non-operating income. In historical periods, enter a currency amount. In forecast periods, enter the tax rate on non-operating profit. If all income is subject to the same tax rate, this is the same rate as in v1610. Strategic Finance multiplies this rate by Non-Operating Profit (v3225.00) to determine the tax on non-operating profit.

**Residual Value Tax Rate (v4.00.560 and v5.00.800)**

This account measures the tax rate on Perpetuity Operating Profit (v5100.00) used in both the Discounted Cash Flow and Economic Profit approaches to valuation. For discounted cash flow, enter the rate by selecting Design, Tax/Valuation Options, SVA. For economic profit, enter the rate by selecting Design, Tax/Valuation Options, EP.

**Taxable Income**

The starting point in analyzing taxable income is Earnings Before Taxes (EBT) (v1600.00). This account aggregates all the items of income and expense and measures book (GAAP) income. There are two general categories of differences between GAAP and tax law. GAAP uses the terms permanent differences and temporary differences to distinguish between them.

A permanent difference is one which is included in taxable income but never EBT or included in EBT but never taxable income. An example of a permanent difference is municipal bond interest income. Municipal bond interest is included in EBT but is never taxable.

A temporary difference occurs when the difference between the financial and tax treatment of an item eventually reverses. Over the life of the item, there is no difference. In a given year, there can be differences. The classic example is depreciation of fixed assets. If assets are depreciated using the straight line method for financial purposes and an accelerated method for tax purposes, a difference between GAAP and taxable income is created. Over the life of the asset, the total depreciation under each method must be equal.

Strategic Finance uses EBT (v1600.00) and subtracts Permanent Differences (v3130.00) and Temporary Differences (v3120.00) to arrive at Taxable Income (v3140.00).

- “Temporary Differences” on page 115
- “Permanent Differences” on page 116

**Temporary Differences**

Strategic Finance uses two accounts to represent temporary differences:

- (v3110.00) Other Temporary Differences
- (v3120.00) Temporary Differences

Other Temporary Differences (v3110.00) is an input in all periods.
In historical periods, Temporary Differences (v3120.00) is entered as a tax rate. The rate should be such that Deferred Provision for Income Taxes (v1160.00) divided by it equals the temporary differences in that period.

In forecast periods it is calculated as:

\[ v3100.00 - v2190.01 + v3110.00 \]

where:
- \( v3100.00 \) Tax Depreciation
- \( v2190.01 \) Depreciation Expense (Funds)
- \( v3110.00 \) Other Temporary Differences.

If multiple temporary differences exist, you can subaccount Other Temporary Differences (v3110.00), so subaccounts represent a unique temporary difference. You can model each subaccount using a forecast method that best predicts what happens during the forecast periods.

**Permanent Differences**

Permanent differences are entered in Permanent Differences (v3130.00). This account uses the default Freeform formula as follows:

- \( (v2410.03) \) Amortization of Intangibles

Permanent Differences (v3130.00) are subtracted from EBT (v1600.00) to arrive at Taxable Income (v3140.00).

If additional permanent differences exist, and you want to model each separately, create subaccounts and model each permanent difference individually. The first subaccount inherits the default Freeform formula. As with Freeform Formulas, you can modify or delete it. Permanent Differences (v3130.00) is the total of all the subaccounts.

**Deferred Taxes**

Use these accounts to model taxes on the Balance Sheet:

- \( (v2080.00) \) Current Deferred Tax Asset
- \( (v2080.01) \) Incr. in Curr. Def Tax Asset
- \( (v2380.00) \) Deferred Tax Asset
- \( (v2380.01) \) Incr. in Def. Tax Asset
- \( (v2580.00) \) Current Deferred Tax Liab.
- \( (v2580.01) \) Incr. in Curr. Def. Tax Liab.
- \( (v2770.00) \) Deferred Income Taxes
- \( (v2770.01) \) Incr. in Deferred Inc. Taxes
Changes in the deferred tax accounts generally are due to changes in temporary differences. The proper relationship between these accounts and Temporary Differences (v3120.00) assures proper presentation of the deferred tax position.

Strategic Finance uses Current Deferred Tax Asset (v2080.00), Deferred Tax Asset (v2380.00), Current Deferred Tax Liab (v2580.00), and Deferred Income Taxes (v2770.00) as input accounts. **Incr. in Curr. Def Tax Asset (v2080.01), Incr. in Def. Tax Asset (v2380.01), Incr. in Curr. Def. Tax Liab. (v2580.01)** and **Incr. in Deferred Inc. Taxes (v2770.01)** take the current period value in the associated account and subtract the previous period value. If the input accounts are zero, the calculated accounts are zero.

In forecast periods, Strategic Finance calculates the deferred tax provision as a function of temporary differences in that period. Strategic Finance does not default a relationship between the deferred tax accounts on the balance sheet and deferred tax provision on the income statement. To keep the cash flow reports internally consistent, this relationship must be enforced. The best way to enforce it is to make sure this equality holds in all periods:

\[ v1660.00 = v2770.01 + v2580.01 - v2080.01 - v2380.01 \]

Deferred Tax Reconciliation (v4180.00) is calculated using the above equation. On the Direct and Indirect Cash Flow Statements, this account can be accessed by analyzing Non-Operating Income (v4200.00). On the FAS 95 Cash Flow Statement, this account can be accessed by analyzing Non-Operating Sources (FAS 95) (v4520.00).

### Historical Averages

You can forecast an account based on its historical average. Strategic Finance calculates the historical average of that account and apply it to all forecast periods.

For example, for three historical periods in a file, the respective sales were 100, 110, and 121. If the forecast periods, you want to forecast sales as a historical growth rate. Strategic Finance calculates historical growth rates to apply to forecast periods. Without data input, Strategic Finance grows sales at 10% in all periods.

This is a dynamic forecast method. If you changed one of the historical years, recalculating the file would change the sales forecast by applying the new historical average. If you changed the amount of historical years, recalculating the file would change data dependent on the historical average.

The number of years for the historical average is determined through the Time dialog, where you set the amount of years for the historical average. In the case of growth rates, you must select three years of history to get two growth rates. The other place to determine the amount of time to use for the historical average is the Account Status & Groupings Dialog. The Historical Average tab enables you to determine, for each account, how many periods to use in calculating the historical average.

The historical average calculation is a weighted calculation. Say, for example, you forecast Cost of Goods Sold as a historical average percentage of Sales. You have two years of historical data as follows:
The historical average calculation sum all the sales values and COGS values and calculate the percentage. In this case, \(180\ (70 + 110)\) divided by \(300\ (100 + 200)\) would yield a historical average percentage of 60. The alternative is to calculate the percentage in each period and take the historical average of the percentages. Doing that here would return a historical average percentage of 62.5. Weighting is a superior method of calculation.
In This Chapter

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Defining, Deleting, and Displaying Time Periods...................................................... 119
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About Time Periods

You create time periods with detail required by financial models. You can combine periods of years, weeks, months, quarters, and halves for historical and forecast data. You can create period-to-date periods, trailing periods, and, for transactions reporting, deal periods and subperiods.

Use the Time Periods dialog to modify time period structure and settings. You can select last historical periods, add or delete periods, change time details, change period labels, select periods to display, and insert periods-to-date or subperiods.

Defining, Deleting, and Displaying Time Periods

Subtopics

* Adding Years
* Changing Time Period Details
* Account Input Inheritance and Backsolving
* Recalculating Values for Changed Periods
* Changing Time Period Labels
* Deleting Time Periods
* Converting Forecast Periods to Historical Periods
* Creating Subperiods
* Concealing Time Periods in Reports
* Editing Last Actual Time Periods

When you create Strategic Finance models, you define the number and type of time periods (weeks, months, quarters, halves, years). Afterwards, you can modify and add time periods, to enhance financial models.
To define time periods:

1. Select Analysis, then Time, and then Time Periods.
2. In Last Historical Period, you select a year to be the last historical year of the model.
3. In Base Period, you select a year to be the base period of the model.
4. In Years for Historical Average, you enter a number to define the number of historical years in the model.
5. The Period list displays this information:
   - Period — Name of the period when displayed on the Accounts view and in reports.
   - ID — Code name internally used to reference the period.
   - Display — If status is provided in reports. See “Concealing Time Periods in Reports” on page 124.
   - Input — If users can enter data for trailing periods.
6. In Time Periods, perform these tasks:
   - Add years — “Adding Years” on page 120.
   - Delete time periods — “Deleting Time Periods” on page 122.
   - Change details — “Changing Time Period Details ” on page 121.
   - Create subperiods — “Creating Subperiods” on page 123.
   - Create period-to-date subperiods — “About Period-to-Date and Trailing Periods” on page 125.
   - Create trailing periods — “Creating Trailing Periods” on page 126.

Adding Years

Years can be added to the beginning or end of the entity. The detail of the years can also be selected.

To add years to time periods:

1. Select Analysis, then Time, and then Time Periods.
2. On Time Periods, click Add Years.
3. Select a Where option, and indicate if you are adding years at the Beginning or End of your model.
4. In Number of Years, enter the number of years to add. The range of years is from 1950 to 2100.
5. Under Details, define the level of time to use to model the year. For example, to model using six months, select Halves. To model using financial quarters, select Quarters.
6. In Add Years, click OK.
7. In Time Periods, click OK.
Changing Time Period Details

When you generate time periods for a financial model, all periods share detail level, which you define in the Time Period Setup Wizard. You detail level for individual years using the Detail in Year option.

To change time period level detail:

1. Select Analysis, then Time, and then Time Periods.
2. On the timeline, under Period, select a year.
3. Click Detail in Year.
4. Under Change Years, select one or more periods.
5. Under Level of Detail, select a period that determines aggregate periods. For example, you can select Months without selecting Quarters or Halves—resulting in 12 months and the annual period. You can add the aggregate periods later, which, except for annual periods, are not automatically created.
6. On Change Time Period Detail, click OK.
7. On Time Periods, click OK.
8. Optional: Calculate the model.

See “Recalculating Values for Changed Periods” on page 121.

Account Input Inheritance and Backsolving

In custom scenarios, non-scenario-specific accounts inherit values only from the Base scenario. This dynamic link ensures data integrity between scenarios. This default inheritance behavior between custom scenarios and the Base scenario is valid with backsolving in most models.

In some models however, you may need to modify the behavior so the Base scenario inherits values from the Actuals scenario, which become the values in non-scenario-specific accounts of custom scenarios, resulting in three inheritance layers. If this is the case and you are using features that perform extensive backsolving, such as Consolidator and Currency Translator, custom scenarios may create scenario-specific values for the non-scenario specific accounts, severing the inheritance chain between the custom scenario and Base. To avoid this:

- Revert to the default behavior, so the custom scenario inherits solely from Base—preferred.
- In cases where the Base scenario absolutely must inherit values from Actuals, redesign the financial model so all affected accounts in the custom scenario are scenario specific.

Recalculating Values for Changed Periods

When you change time periods, Strategic Finance prompts to recalculate when changes require backsolving.

To calculate input values for changed periods:

1. On Calculate Input Values for Changed Periods, select an option:
- **Calculate Inputs for All Scenarios**
  Calculate input values for all scenarios. May add accounts to some scenarios.

- **Calculate Inputs for Current Scenario Only**
  Calculate input values for the current scenario only. Only the current scenario changes—values for other scenarios are zeroed.

- **Don’t Calculate Inputs**
  Does not calculate input values—all inputs are zeroed.

2  Click OK.

### Changing Time Period Labels

When changing time period detail level, you might want to change time period labels. Labels appear on timelines and as column headings in Account and Report views.

- To change time period labels:
  1. Select **Analysis**, then **Time**, and then **Time Periods**.
  2. Under **Period**, double-click a period.
  3. Enter a name and press Enter.

### Deleting Time Periods

You can delete years from the beginning or end of financial model timelines.

- To delete time periods:
  1. Select **Analysis**, then **Time**, and then **Time Periods**.
  2. Click **Delete Years**.
  3. In **Where**, select **Beginning** or **End**.
  4. In **Number of Years**, enter a number.
  5. In **Delete Years**, click **OK**.
  6. In **Time Periods**, click **OK**.

### Converting Forecast Periods to Historical Periods

When you change forecast periods to historical periods, input values become actual currency values.

- To convert forecast periods to historical data:
  1. Select **Analysis**, then **Time**, and then **Time Periods**.
2 In Last Historical Period, select a last period of historical data.

3 Optional: Relabel the period.
   
   See “Changing Time Period Labels” on page 122.

4 Click OK.

Creating Subperiods

Define subperiods for periods when transactions such as acquisitions or leveraged buyouts occur. For example, for an LBO that took place on April 15 of a given year, the subperiod length is 105 days.

To create subperiods:
1 Select Analysis, then Time, and then Time Periods.
2 Under Period column, select a time period.
3 Click Subperiods.

Review information:
- Time Period
  The selected time period.
- Days
  The number of days in the time period.
- Add
  Add subperiods to the grid
- Delete
  Deletes subperiods from the grid.
- Subperiod Grid
  After you add subperiods, edit subperiod names and lengths in the grid.
- <Unallocated Days>
  The number of days from total period not yet allocated to subperiods. Must be zero before you click OK.

4 Click Add.

5 Under Period, enter a name.

6 Under Days, enter a length of time.
   
   Subperiods must be at least 1 day long.

7 Create more subperiods and allocate days until <Unallocated Days> is zero.

8 Click OK.
Caution! If the <Unallocated Days> is not zero, subperiods are not created.

9 On Time Periods, click OK.

10 Optional: Calculate the model.

See “Recalculating Values for Changed Periods” on page 121.

Concealing Time Periods in Reports
By default all time periods display in reports, unless you specify otherwise.

➢ To hide time periods in reports:

1 Select Analysis, then Time, and then Time Periods.

2 Under Period column, select a time period to hide in reports.

3 Click Display Period.

Display shows the display/hide status for the time period in all reports:

- Yes—display
- No—hidden

Editing Last Actual Time Periods

➢ To change the last actual period:

1 Select Analysis, then Time, and then Actual Periods.

2 In Last Actual Period, select a time period.

3 Optional: Select Use current scenario’s data when adjusting actual period(s) to use the scenario currently selected when adjusting the actual time period.

4 Click OK.
Creating and Distributing Period-to-Date and Trailing Periods

Subtopics

- About Period-to-Date and Trailing Periods
- Creating Period to Date Subperiods
- Creating Trailing Periods
- Inputting Period-to-Date and Trailing Period Data
- Distributing Aggregate Data Across Time Periods

About Period-to-Date and Trailing Periods

Use period-to-date to create year-to-date, half-to-date, quarter-to-date, or month-to-date periods. To preserve the integrity of an analysis, “to-date” periods are not included in the Cash Flow Statements.

- A Year-to-Date Total sums all preceding semi-annual, quarterly, monthly, or weekly periods into a previous annual period.
- A Quarter-to-Date Total sums all preceding weekly or monthly periods into a previous quarterly period.

All financial accounts in period-to-date periods are calculated by default. You can view period-to-date periods in the Accounts spreadsheet or in Reports.

Creating Period to Date Subperiods

To create Period-to-Date subperiods:

1. Select Analysis, then Time, and then Time Periods.
2. Under Period, select a time period.
3. Click Period-to-Date.
4. On Period-to-Date Totals, select the option that defines the total range of time to include in the period. For example to specify that you want to start and include the first week of a month up to the current month, select Month to Date and specify the present week in Level of Detail.
5. Optional: Select Active options to add more periods-to-dates to selected periods.
6. Optional: Select Display options to identify period to dates to present in reports.
7. Click OK.
Creating Trailing Periods

To create Periods-to-Date:

1. Select Analysis, then Time, and then Time Periods.
2. Under Period, select a period.
3. Click Trailing Periods.
4. Click Add.
5. In Enter length of trailing period in Halves, enter a number of trailing periods.
6. Optional: To change trailing period labels, click one twice or press F2, enter a label, and press Enter.
7. Click OK.

Inputting Period-to-Date and Trailing Period Data

By default Periods-to-Date and Trailing Periods calculate values. Use the following procedure to input values when aggregate data is available—often used to create Last Twelve Months aggregate periods.

To enable Period-to-Date or Trailing Periods for input:

1. Create a calculated Period-to-Date or Trailing Period.
2. Under Period, open the selected time period and select the aggregate Period-to-Date or Trailing Period that was just created.
3. Click Input.
4. Click OK.
5. Optional: Calculate the model.

See “Recalculating Values for Changed Periods” on page 121.

The aggregate period now accepts input, and the last time period before the aggregate period is the calculated amount summing all interim periods to the input aggregate period.

Distributing Aggregate Data Across Time Periods

To spread aggregate data evenly over multiple time periods:

1. Create a Period-to-Date or Trailing Period Input.
   See “Inputting Period-to-Date and Trailing Period Data” on page 126.
2. On Time Periods, under Period, select the beginning time period for allocation.
   Must be within the aggregate input period’s time boundary.
3. Click Input.
4. Click OK.
Optional: Calculate the model.

See “Recalculating Values for Changed Periods” on page 121.

Now all time periods between the one chosen above and the aggregate period are calculated to spread the aggregate information evenly.

Managing Deal Periods

Subtopics

- Creating Deal Periods
- Moving Deal Periods
- Deleting Deal Periods

Creating Deal Periods

For analyses with transactions, you can create zero-length deal periods for re-levering the Balance Sheet with no time elapsing, so the Income Statement is empty, for use as restatement periods.

To create Deal Periods:

1. Select Analysis, then Time, and then Add Deal Period.
2. In Add deal at end of, select the time period when the deal should occur.
3. Click OK.

A deal period is added to the end of the time period selected.

Note: When you add a deal period, Strategic Finance automatically renames the time period to “(Time Period):Closing” before adding the deal period. All data from the initial time period remains in the closing period.

Moving Deal Periods

Strategic Finance enables you to easily change move deal periods. You can also delete the deal period created and choose to keep or delete its data.

To move deal periods:

1. Select Analysis, then Time, and then Move Deal Period.
   - If the model has a deal period, Move Deal Period displays.
2. In Move deal to the end of, select a time period.
3. Click OK.

The deal period changes.
Deleting Deal Periods

When you delete deal periods, you can delete or retain the results.

➢ To delete deal periods:

1. Select Analysis, then Time, and then Remove Deal Period.
   If the model has a deal period, Delete Deal Period displays.

2. Under Delete Deal Period, select an option:
   - Delete Deal
     Deletes the deal period and all associated values.
   - Delete Deal, but Keep Results of Adjustment
     Deletes the deal period but retains the combined results of the Closing and Deal Periods as the ending balance of the time period.

3. Click OK.

Changing the Fiscal Year End

Change the fiscal year end to specify the end of the fiscal year in models.

- Changing the fiscal year end results in partial years at the beginning and end of the entity. Partial-year data is discarded during conversion. To retain the data, add a year at the end and/or beginning of the entity.
- To retain historical and forecast data in the years, define the years before and after the historical boundary in monthly detail.
- To ensure accuracy for years containing aggregate values like year-to-date or trailing periods, make sure there is enough time detail in each year. Use Entity Change Manager to modify time detail.

➢ To change the fiscal year end:

1. Open an entity.

2. Select Analysis, and then Time, and then select Change Fiscal Year End.

3. In New Fiscal Year End Month, select a month.

4. Click OK.
About Funding Options

Subtopics

- Account Types
- Surplus and Deficit Settings
- Order of Repayment and Funding
- When do Funding Options Balance?

Funding Options enable you to pay off debt accounts with cash from surplus accounts. You specify which surplus accounts go to which debt accounts, and the order they should be repaid. You can specify fund sources the company should borrow from in paying deficits. You can identify affordable dividends, handling of common and preferred stocks, and issuance or repurchase of shares.

Account Types

Account type refers to the revolver or term settings of Notes Payable and Long-Term Debt: Scheduled, and equity accounts such as preferred, common, contra-equity, and dividends. It is listed in the Type column for each account on every tab of the Funding Options dialog.

You cannot change account types of asset accounts ( Marketable Securities, Excess Marketable Securities, and Long-Term Funding Asset) or Long-Term Debt: Excess. The remaining debt accounts can be specified as revolving or term accounts. To change account type, click the Type cell next to the account. These accounts may be defined as revolving or term accounts:

- Notes Payable (Short-Term Debt) (v2520.00) or its subaccounts
Long-Term Debt: Scheduled (v2660.00) or its subaccounts.

**Surplus and Deficit Settings**

Use the Surplus or Deficit columns to specify whether accounts are used for cash surpluses or deficits. Select the Surplus column to use cash surpluses to repay a revolving debt facility, prepay a term debt facility, or to accumulate in asset accounts. Select the Deficit column to use a debt instrument or funding asset account to fund a cash deficit.

*Note:* You cannot change the two cash balancing accounts (Excess Marketable Securities and Long-Term Debt: Excess) surplus/deficit settings—both function as sources or uses in the case of a cash surplus or deficit in your model.

**Order of Repayment and Funding**

In the Funding Options dialog, use “Apply Cash Surplus to” and “Fund Cash Deficit with” to specify the order of account use, in the event of cash surpluses or deficits. To reorder, click and drag accounts to different positions in the list.

<table>
<thead>
<tr>
<th>Order</th>
<th>Apply Cash Surplus to...</th>
<th>Order</th>
<th>Fund Cash Deficits with...</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>L-T Debt: Excess</td>
<td>First</td>
<td>Excess Marketable Securities</td>
</tr>
<tr>
<td>Next</td>
<td>Other Selected Surplus Accounts</td>
<td>Next</td>
<td>Other Selected Deficit Accounts</td>
</tr>
<tr>
<td>Last</td>
<td>Excess Marketable Securities</td>
<td>Last</td>
<td>L-T Debt: Excess</td>
</tr>
</tbody>
</table>

With a cash surplus, by default, Long-Term Debt: Excess is reduced first if a balance exists. Funds remaining, after reducing other surplus accounts selected, accumulate in Excess Marketable Securities. With a cash deficit, by default, Excess Marketable Securities is used as funding first. If there is still a cash deficit after other selected funding accounts are used up to their forecasted limits, Long-Term Debt: Excess funds the remaining cash deficit in its entirety.

*Note:* Excess Marketable Securities is last in the Apply Cash Surplus to... order and by default is first in the Fund Cash Deficit with... order. Long-Term Debt: Excess is by default first in the Apply Cash Surplus to... order and last in the Fund Cash Deficits with ... order.

**When do Funding Options Balance?**

Funding Options never attempt to balance funding during historical or actual periods, so you may see non-zero values in Net Funds Flow Source (Use) (v3040) in historical or actual periods.

Funding Options balance all input periods that are neither historical nor actual periods. These are typically called input forecast periods, but actual periods may occur in what are typically forecast periods.

When there is a forecast leaf period (a non-aggregate period) that is not an input period because its values are interpolated using inputs from a period-to-date or trailing period, Funding Options
balance that period unless it is the last period before the input period-to-date or trailing period that is driving it’s values.

**Funding Options Accounts**

Subtopics

- Long-Term Debt: Scheduled (v2660.00) and Notes Payable (v2520.00)
- Marketable Securities (v2010.00), Long-Term Funding Asset (v2460.00), Preferred Stock (v2820.00), Common Shares Issued (Year End) (v3460.00), and Treasury Shares (v3470.00)
- Excess Marketable Securities (v2015.00), and Long-Term Debt: Excess (v2690.00)

**Long-Term Debt: Scheduled (v2660.00) and Notes Payable (v2520.00)**

These debt accounts can be specified as revolving or term debt instruments. They can be repaid early in case of a cash surplus. If you repay a term debt facility with cash surpluses, the model reduces the debt instrument by its forecasted principal payments. If a debt account is a revolver, it can be used as a funding source with a specified maximum or “cap,” and a minimum balance to be maintained. These accounts can have subaccounts, which appear in Funding Options.

**Marketable Securities (v2010.00), Long-Term Funding Asset (v2460.00), Preferred Stock (v2820.00), Common Shares Issued (Year End) (v3460.00), and Treasury Shares (v3470.00)**

These are asset accounts that can be used for funding cash deficits and accumulating cash surpluses. They can have subaccounts, which appear in Funding Options.

**Excess Marketable Securities (v2015.00), and Long-Term Debt: Excess (v2690.00)**

These are cash-balancing accounts with permanent Funding Option settings—unlimited maximums, fixed surpluses, and deficit orders (the accounts are first and last in each area), and subaccounting is disabled.

- Excess Marketable Securities (v2015.00) accumulates cash surpluses, and can be used as a funding source.
- Long-Term Debt: Excess (v2690.00) acts as an unlimited long-term revolving facility funding cash deficits not covered by other debt facilities.
Using Funding Methods

Subtopics

- Accessing Funding Options
- Setting Common Attributes for Funding Accounts
- Using the Standard Funding Method
- Using the Target Capital Structure Funding Method

You can use the standard funding method or the target capital structure funding method—both require you to configure common attributes for funding accounts.

Accessing Funding Options

➤ To access funding options, select Analysis, then Funding Options.
- See “Setting Common Attributes for Funding Accounts” on page 132
- See “Using the Standard Funding Method” on page 133
- See “Using the Target Capital Structure Funding Method” on page 134

Setting Common Attributes for Funding Accounts

Use common attributes to identify funding account information before creating a Standard or Target Capital Structure Funding Method. You may identify certain advanced funding account attributes—if the account is zero-based, or has an unlimited maximum (no maximum amount), or a minimum funding requirement (specify minimum), or a minimum change amount.

➤ To set the Funding Option common attributes:
1. Access Funding Options.
   See “Accessing Funding Options” on page 132.
2. Select Common.
3. Under Funding Method to use, select one option:
   - Standard
   - Target Capital Structure
4. Optional: Select Actual Override Defeats Funding to determine how ‘##’ overrides function:
   - Deselected—‘##’ overrides the account maximum.
   - Selected—‘##’ overrides the account balance.
5. Optional: Under Type, click the cell to change the account type for related debt accounts:
   - Term
   - Revolving Debt.
6 Optional: Select the box under Zero Based for an account to be set to zero before the funding sequence begins—the account starts with a zero balance.

7 Optional: Select the box under No Maximum for an account to accept or fund with no cap or maximum.

8 Optional: Select the box under Specify Minimum if an account to requires a time series of assumptions when the balance of the funding account should not go below.

For example, certain compensating balances might be required by a lender in cash or securities.

9 Optional: In Minimum change, enter a minimum amount that the account must change to be part of the funding.

If the minimum change is not met, the account is not utilized funding surplus or deficit. The value you enter should reflect the default currency of the file. For example, if the file is in Thousands of Dollars, a 10 would reflect a minimum change of $10,000.

10 Depending on the Funding Method to Use option, perform an action:

- For Standard, see “Using the Standard Funding Method” on page 133.
- For Target Capital Structure, see “Using the Target Capital Structure Funding Method” on page 134.

11 Click OK.

Using the Standard Funding Method

The Standard funding method applies cash surpluses and funds cash deficits for your funding accounts regardless of funding category (debt, preferred equity, or common equity)—providing a unified funding priority plan across all funding account categories. You identify additional funding account characteristics, and the funding of deficits or receiving cash surpluses.

Use the Funding Analysis Report, a summary of the study’s capital structure, to review the results of your funding strategy.

➢ To enter standard funding information:

1 Access Funding Options.

See “Accessing Funding Options” on page 132.

Ensure that Common information exists and Standard is selected in the Funding Method to Use field. See “Using the Standard Funding Method” on page 133.

2 Select Standard.

3 Under Surplus select accounts providing cash, and under Deficit, select accounts receiving cash.

Note: Some account settings may not be changed. For example, Excess Marketable Securities funds cash deficits to balance the forecast periods.
Apply Surplus in Category to... and Fund Deficit in Category with... display the order in which these accounts are processed. See “Order of Repayment and Funding” on page 130.

4 Optional: Click and drag on the account names to reorder.

5 Click OK.

Using the Target Capital Structure Funding Method

The Target Capital Structure Funding Method applies cash surpluses by funding accounts category: debt, equity, and preferred. You can create target level and prioritize the order of funding categories (for example, target debt-to-total capital). Strategic Finance calculates each category target level, and applies surpluses to deficits in each category based on ordered priority.

To entering Target Capital Structures:

1 Access Funding Options.

See “Accessing Funding Options” on page 132.

Ensure that Common information exists and Standard is selected in the Funding Method to Use field. See “Using the Standard Funding Method” on page 133.

2 Select Target Capital Structure.

3 Select a funding account Category:
   - Debt
   - Equity
   - Preferred
   The Preferred option is not available unless an Allocate Preferred Separately option is selected under Treatment of Preferred Stock.

4 In Treatment of Preferred Stock, select a method of treating preferred stock:
   - Allocate Preferred as Debt—All preferred accounts are debt. Preferred is unavailable.
   - Allocate Preferred as Equity—All preferred accounts are equity. Preferred is unavailable.
   - Allocate Preferred Separately, Overflow to Debt—Preferred accounts are independent from the Debt and Equity accounts.
   - Allocate Preferred Separately, Overflow to Equity—Preferred accounts are independent from the Debt and Equity accounts.
   Notice that the funding accounts for the category you selected are listed with the account number and type.

5 Under Surplus select accounts providing cash, and under Deficit, select accounts receiving cash.

Some accounts may not be included in the funding lists. For example, Term Debt cannot be used in the funding lists as a source of funding.

6 Optional: Click and drag on the account names to reorder.
Apply Surplus in Category to... and Fund Deficit in Category with... display the order in which these accounts are processed. See “Order of Repayment and Funding” on page 130.

7 Click OK.

Types of Debt Accounts

Subtopics

- Revolving Debt Accounts
- Term Debt Accounts
- Long-Term Debt: Excess Accounts

There are three types of available debt facilities:

- Revolving
- Term
- Long Term Debt: Excess.

Notes Payable and Long-Term Debt: Scheduled can be modeled as a term or revolver account. Long-Term Debt: Excess is a revolver or cash balancing account. All three debt accounts can be modeled with respective interest expense.

Revolving Debt Accounts

Revolver accounts have ceilings—the outstanding balance in a given period may be below or equal to that ceiling. In Funding Options, you can designate revolver accounts as cash deficit and/or cash surplus accounts. You can repay each account up to the balance, or use it to fund a deficit up to its ceiling.

- If you do not apply a cash surplus to a revolver account and do not to use the account to fund deficits, the balance in each period equals the lesser of the prior period’s balance or the specified ceiling.
- If you repay a revolver account early, Funding Options first makes payments required under scheduled revolver ceiling reductions. After meeting the ceiling reduction for all accounts, Funding Options uses surplus cash to reduce the balance of those revolver accounts in Apply Cash Surplus to....
- If you use a revolver account to fund cash deficits, Funding Options draws cash from this account as a source of funds. The amount of funding available is a function of the prior balance for that account and the ceiling specified for that revolver account.
- If you apply a cash surplus to a revolving account and use that account to fund cash deficits, Funding Options may lower the balance of the account in one period because of excess funds. In the next period you can borrow that money to fund shortfalls, depending on the cash requirements.
See “Modeling Revolver Accounts” on page 137.

**Term Debt Accounts**

Term debt represents a fixed outstanding loan obligation. By default, term debt is not affected by cash surplus/deficit balances. You can pay some or all loans early, ahead of amortization schedules, when excess cash is available after meeting the required amortization. Term debt cannot be used as a source of funds.

When an account is a term loan, the input data represents the balance of that loan in each period or the amortization schedule, depending on how you forecast the account.

If you repay a term account early, Funding Options repays the account with the early amortization “coming off of the back end” of the account—it pays the scheduled amortization until paid in full, and only after that are additional amounts paid. Even if early payments are made, Funding Options continues to make all scheduled amortization payments until the balance of the facility is zero.

- “Modeling Term Accounts” on page 138
- “Modeling Term Accounts to Automatically Reduce” on page 139.

**Long-Term Debt: Excess Accounts**

Long-Term Debt: Excess is the last source of funds in the case of a cash deficit. When all sources of funding are exhausted (e.g., revolvers and funding assets), Funding Options borrow from Long-Term Debt: Excess. It is a revolving account with an infinite ceiling that is, by default, repaid first in the event of a cash surplus. You can not specify a minimum balance or change the Surplus/Deficit order.

**Types of Asset Accounts**

**Subtopics**
- Marketable Securities
- Excess Marketable Securities
- Long-Term Funding Asset

Of the three asset accounts in Funding Options, Marketable Securities (v2010.00) and Excess Marketable Securities (v2015.00) are short term investments, while Long-Term Funding Asset (v2460.00) is a long-term funding instrument. Both investment accounts can be modeled with respective interest income amounts.
**Marketable Securities**

You can designate Marketable Securities as a funding source (deficit account). The account is used, with unused internally generated funds, to repay debt early. Marketable Securities can accumulate excess funds, (cash surplus account). Set Marketable Securities to a Surplus and/or Deficit account by clicking in the **Surplus** and/or **Deficit** columns. Select the funding source and order of use in the **Apply Cash Surplus to...** and **Fund Cash Deficit with...** sections.

**Excess Marketable Securities**

Excess Marketable Securities is the “last” use of funds in case of cash surplus. When all funding instruments are reduced and there are funds remaining, Excess Marketable Securities accumulates excess funds. This account also acts as the first funding source under the default setting in case of cash deficit.

Similar to Long-Term Debt: Excess, most attributes related to this account are unchangeable. Excess Marketable Securities cannot be subaccounted. It has an unlimited maximum. A minimum balance cannot be specified and the **Apply Cash Surplus to...** and **Fund Deficit with...** orders cannot be changed.

**Long-Term Funding Asset**

The Long-Term Funding Asset account can be used to model intercompany funding or a long-term asset that might be liquidated for funding purposes. Long-Term Funding Asset can be a Surplus and/or Deficit account by clicking in the respective **Surplus** and/or **Deficit** columns. Select the funding source and order of use in the **Apply Cash Surplus to...** and **Fund Cash Deficit with...** sections.

**Modeling Revolver and Term Accounts**

Subtopics

- Modeling Revolver Accounts
- Modeling Term Accounts
- Modeling Term Accounts to Automatically Reduce

**Modeling Revolver Accounts**

To model revolver accounts:

1. **Access Funding Options.**
   
   See “Accessing Funding Options” on page 132.

2. **Under Type, by Note Payable or L-T Debt: Scheduled, select Revolver.**

3. **Under Surplus, select cash source accounts, and under Deficit, select deficit accounts to receive cash.**
4 Click Inputs.
5 In Account Input, select the revolver account.
6 Click Forecast Methods.
7 Select Structured or Freeform.
   - On Structured, select a forecast method for the revolver limit. Select one of 10 predefined forecast methods.
   - On Freeform, enter a Freeform Formula for the revolver limit.
   - Select a model:
     - Balance—maximum revolver balance.
     - Increase—increase in maximum revolver balance.
   - To model a revolver based on a Borrowing-Base or Loan Advance formula (revolver maximum based on a percentage of designated collateral), forecast the Maximum Revolver Balance and use the Freeform formula method.

Example 1:
Formula Description: Maximum Revolver Facility: based on % of Receivables and Inventories
Formula:
\[(90\% \times v2020) + (50\% \times v2040)\]

Example 2:
Formula Description: Maximum Revolver Facility: Maximum of 1000 or 90% of Working Capital
Formula:
\[\text{max}(1000, (90\% \times v2020) + (50\% \times v2040))\]

In case of cash deficit, the revolver account lends up to its forecasted maximum before Funding Options select to the next account in Fund Cash Deficits with....

**Modeling Term Accounts**

- To model term accounts:
  1. Access Funding Options.
     - See “Accessing Funding Options” on page 132.
  2. Under Type, by Note Payable or L-T Debt: Scheduled, select Term.
  3. Under Surplus select the account with the term loan to be repaid early with a cash surplus.
  4. Click Inputs.
  5. On Account Input, select the term account.
  6. Click Forecast Methods.
7 **Select Structured or Freeform.**

- On **Structured**, select a forecast method for the term loan. Select one of 10 predefined forecast methods.
- On **Freeform**, enter a Freeform Formula for the term loan.
- Select a model:
  - Balance—term debt balance.
  - Increase—change in balance with an amortization schedule.
- To set automatically reducing term accounts, see “Modeling Term Accounts to Automatically Reduce” on page 139.

### Modeling Term Accounts to Automatically Reduce

- To model automatically reducing term accounts:
  1. **Select Structured.**
  2. In **Forecast**, select % of Another Account.
  3. In **Associated Account**, enter **Current-Portion Long-Term Debt (v2510.00)**
  4. In **Forecast As**, select **Incr. in New Bank Term Loan**.
  5. Click **OK**.
  6. On **Account Input**, select the term account and enter -100 (which is equivalent to “-100%”) in the forecast periods.
  7. On **Account Input**, select **Current-Portion Long-Term Debt (v2510.00)** and enter the scheduled payment/amortization schedule in the cells.

**Note:** Ensure this account is not forecast using Increase in and the As Actual Value forecast method.

**L-T Debt: Scheduled** is reduced by the amount in **Current-Portion Long-Term Debt**.

### Funding Options Strategies

In funding plans, you must establish expectations for cash sources and use of excess funds from the firm’s operating strategies. Funding plans might include external sources such as debt, preferred equity, common equity, or reinvestment of internal funds. It may include uses like dividends and share repurchases to treasury stock, retirement of debt or preferred equity, or investments in marketable securities.

Factors in funding activities include:

- Dividend Payout Rate
- Operating Profit margin and Net Income/Sales
Investment in fixed and working capital required to support sales growth
Incomes taxes
Target Debt Capacity

Two funding methods are useful in these situations:
- Using the standard method, you may specify sources and use priority orders for funding accounts.
- Using the target capital structure method, you specify sources and uses within funding categories such as debt, preferred equity and common equity. This establishes a funding policy that manages your model's capital structure.

Each method is useful for different funding states:
- “The Standard Method with a Surplus” on page 140
- “The Standard Method with a Deficit” on page 141
- “The Target Capital Structure Method Priorities” on page 141
- “Target Capital Method with a Surplus” on page 142
- “Target Capital Method with a Deficit” on page 142

The Standard Method with a Surplus

Using the standard method with forecasts resulting in cash surplus before funding, Strategic Finance distributes the surplus using the order and priority in the Apply Cash Surplus to... list of the Standard tab. Funding accounts not in the funding lists may be forecasted like all other balance sheet accounts.

Enter accounts in the Apply Cash Surplus to... list to achieve:
- Increasing Marketable Securities
  To retain excess cash, include marketable securities in the list. You can retain funds for future investments.
- Repayment of Debt
  To pay down term debt early, include term debt in the list. This repays debt beyond the forecasted decline if surplus cash is available.
- Reduction in Revolving Balances
  To reduce outstanding balance on revolving debt, include the revolving account in the list.
- Retirement of Preferred Stock
  To apply cash to early retirement of preferred stock, include it in the list.
- Acquisition of Treasury Stock (Common Shares and New Common Shares)
  To repurchase the firm's treasury shares, include it in the list.
The Standard Method with a Deficit

When the standard method and your forecasts result in cash deficits before funding, the deficit is funded according to the order on the Fund Cash Deficits with... list of the Standard tab.

Enter accounts in the Apply Cash Surplus to... list to achieve:

- **Decreasing Marketable Securities**
  
  To use excess cash, include marketable securities in the list. Minimum requirements are honored if you select “specify minimum” and enter a non-zero value in the forecast for minimum marketable securities.

- **Increase in Revolving Balances**
  
  To include as a source of cash the possibility of increasing the outstanding balance on revolving debt, include the revolving account in the list.

- **Issuance of Preferred Stock**
  
  To fund deficits with Preferred equity, include the account in the list.

- **Issuance of Common Stock**
  
  If the common shares issued account is in the list, Strategic Finance issues the number of shares at the Transaction Price for Common Shares to raise cash. The maximum number of shares authorized for sale is established in the Common Shares Issued (Year-End) account in all forecast periods.

- **Sale of Treasury Stock**
  
  Another source of corporate cash flow is the sale of treasury stock. Like issuance of common stock, the cash available from sale is determined by the number of shares available for sale and the Transaction Price for Common Shares. If you are accounting for additional paid in capital separately, enter a Par Value per Common Share of Treasury Stock.

The Target Capital Structure Method Priorities

The target capital structure method manages the priority of the category surpluses and deficits in each of up to three funding categories. When using the target capital structure, you specify a target debt capacity and, if needed, a target preferred capacity for your planning entity.

Funding options enable you to specify the order of funding accounts to achieve target category levels. For example, borrowing or repayments on a revolver to meet the targeted debt capacity. Based on these forecasts and based on available funds in the forecast, Strategic Finance applies surpluses and funds deficits in the funding category based on your funding category priorities.

Example:

Sample Company has had a successful year. Cash flow from Operations was $220 million. The total capital has increased from $1.4 billion to $1.5 billion. To maintain approximately 35% debt-to-total capital ratio, you increase debt by $35 million. If there are no forecasted increases in the debt accounts, this amount represents a deficit in the debt-funding category. It is funded according to the entries in the Fund Cash Deficits with... list.
Target Capital Method with a Surplus

If you use the Target Capital Structure method and your forecast results in a category surplus before funding, Strategic Finance distributes the category surplus based on your funding order. Some examples:

- **Affordable Dividend** Affordable dividend may be used to dividend excess equity, lowering retained equity in line with the forecasted time series of debt (and preferred, if specified) capacity. This is like an increase in regular dividends or declaration and payment of special dividends to shareholders.

  **Note:** In the Target Capital Structure - Equity category, Affordable Dividend is the default balancing account in “Apply Surplus” and “Fund Deficit”.

- **Repurchase of Capital Stock**

  Another option when you experience an equity category surplus is to repurchase your stock from your shareholders. Shares are repurchased at the Transaction Price for Common Shares. The number of shares authorized for repurchase is established in the Treasury Shares (Year-End) account.

Target Capital Method with a Deficit

If you use the Target Capital Structure method and your forecast result in a category deficit before funding, Strategic Finance funds the category deficit based on your funding order. Some examples:

- **Issuing New Shares - Issuance of Common Stock**

  To fund deficits in the equity category, you include the common shares issued account in the funding list. Strategic Finance issues the required number of shares at the Transaction Price for Common Shares to raise equity. The maximum number of shares authorized for sale is established in the Common Shares Issued (Year-End) account in all forecast periods.

- **Sale of Treasury Stock**

  Another source of equity funds is the sale of treasury stock. Like issuance of common stock, the number of shares available for sale determines the equity raised from the reissuance at the Transaction Price for Common Shares. If you are accounting for additional paid in capital separately, enter a Par Value per Common Share.
About Tax and Valuation Options

Tax and valuation options enable you to configure and enter data for tax refund calculations, and use of three Strategic Finance valuation methods. Tax and valuation options cover taxes, shareholder value, dividend discount, economic profit, and other valuations. You can also calculate tax effects and define the number of years for Net Operating Loss carryback and carryforward.

Calculating the Tax Effect of Operating Losses

Use Tax and Valuation Options to calculate tax effects, which appear in Calc Tax Refund (v1640.00). Without this option, you can manually enter a Net Operating Loss (NOL)-related tax refund in Additional Tax Refund (v1635.00)—see “Net Operating Loss Calculations” on page 144. Enter NOL-related inputs in the remainder of the dialog.

To automatically calculate tax effect of losses:

1. Access Tax and Valuation Options.
   See “About Tax and Valuation Options” on page 143.

2. Select Taxes tab.

   With this option, the model automatically calculates tax refunds by carrying back and/or forward NOLs by the number of years specified in these input boxes. The inputs apply only with this option.

4. In Years for Loss Carryback, enter a number of years to carry back NOLs.
   In the United States, the Internal Revenue Code currently dictates losses can be carried back 2 years.

5. In Years for Loss Carryforward, enter a number of years to carry forward NOLs.
In the United States, the Internal Revenue Code currently dictates that losses can be carried forward 20 years.

6 **In Initial Loss Balance**, enter an initial loss balance for the NOL-related tax refund calculation.

7 **In Initial Gain Balance**, enter an initial gain balance for the NOL-related tax refund calculation.

8 **In Initial Balance of Taxes Paid**, enter an initial balance of taxes paid on the initial gain balance.

**Note:** Strategic Finance assumes the Initial Loss Balance, Initial Gain Balance and Initial Balance of Taxes Paid entries occur in the period before the first Strategic Finance time period.

9 **Click OK.**

**Net Operating Loss Calculations**

**Subtopics**

- NOL Carryback and Carryforward
- NOL Carryback Accounts
- NOL Carryforward Accounts

When total expenses exceed total income, a Net Operating Loss (NOL) occurs. In Strategic Finance, you have an NOL when Taxable Income (v3140.00) is negative. NOLs impact the results of other years.

**NOL Carryback and Carryforward**

NOLs can carry backward to generate tax refunds paid in previous years, or carried forward to offset future incomes. You can perform these calculations automatically or manually.

Strategic Finance defaults the carryback period to 2 years, which reflects current U.S. tax law. You can change the length for your analysis. NOLs apply first to the earliest year in the carryback period.

If the current year NOL exceeds the taxable income in the earliest year, NOL applies to the second earliest year, and so on. To manage income and associated taxes from the year before your analysis, enter limits for the amount of income and taxes for a carryback to reach.

Strategic Finance assumes the income and taxes occurred in the year before the first historical year. Losses during the carryback period could generate refunds of taxes paid before the analysis starts if the carryback period goes back that far.

If you carry back all the possible NOLs and still have not used up the current year NOL (or if the carryback period is 0), Strategic Finance carries forward the NOLs to the extent of the carryforward period. Strategic Finance defaults the carryforward period to 20 years, which reflecting current U.S. tax law. You can change the length if for your model.

If an NOL exists in the year prior to the analysis start, you can enter and carry it forward. Strategic Finance assumes the loss occurred in the year before the first historical year.
Refunds are calculated once annually using annual results. If an NOL carries back to a year detailed in quarters (negative annual taxable income), the refund appears in the last quarter. If an NOL carries forward into a year detailed in quarters (annual taxable income is positive), the refund only displays in the last quarter.

**NOL Carryback Accounts**

Six accounts illustrate the NOL carryback:

- “Tax Refund Due to Loss Carryback (v3160.00)” on page 145
- “Maximum Carryback (v3160.01)” on page 145
- “Tax Losses Offset (v3160.02)” on page 145
- “Tax Gains Pool (v3160.03)” on page 145
- “Tax Gains Pool Used (v3160.04)” on page 145
- “Tax Pool (v3160.05)” on page 145

**Tax Refund Due to Loss Carryback (v3160.00)**

The refund generated for carrying back current year losses back to previous years.

**Maximum Carryback (v3160.01)**

At the period beginning, this is the largest loss that could be sustained in the current period and still be fully carried back. It is determined by adding the tax gains pool for each year during the carryback period and subtracting gains previously used.

**Tax Losses Offset (v3160.02)**

In a period with a loss, this is the amount of loss actually carried back. It is the lesser of the amount of the loss and the maximum carryback.

**Tax Gains Pool (v3160.03)**

This is taxable income net of amounts carried forward into the current period. These gains are the basis for carrybacks since future losses are carried back against them.

**Tax Gains Pool Used (v3160.04)**

During the carryback period, this represents the amount of gains used by other losses.

**Tax Pool (v3160.05)**

The current provision for income taxes net of refunds due to loss carryforwards. Similar to Tax Gains Pool (v3160.03) since this account holds the taxes made refundable by carrybacks.
**NOL Carryforward Accounts**

Five accounts illustrate the NOL carryforward:

- “Tax Refund Due to Loss Carryforward (v3150.00)” on page 146
- “Maximum Carryforward (v3150.01)” on page 146
- “Tax Gains Offset (v3150.02)” on page 146
- “Tax Loss Pool (v3150.03)” on page 146
- “Tax Loss Pool Used (v3150.04)” on page 146
- “Total Taxes on Operations (v3280.00)” on page 146

**Tax Refund Due to Loss Carryforward (v3150.00)**

Calculates refunds when losses from prior years carry forward into a gain year.

**Maximum Carryforward (v3150.01)**

At the beginning of the period, this is the largest prior loss that could offset gains in the current period. Calculated by taking all the losses that occurred during the carryforward period and subtracting those previously used to offset gains.

**Tax Gains Offset (v3150.02)**

In a period with a gain, the amount carried forward to offset it. It is the lesser of taxable income for the current period and the maximum carryforward.

**Tax Loss Pool (v3150.03)**

Taxable loss for the current period net of amounts used for carrybacks. These are the losses carried forward.

**Tax Loss Pool Used (v3150.04)**

During the carryforward period, the amount of losses used by carryforwards.

**Total Taxes on Operations (v3280.00)**

Strategic Finance performs the same calculations for NOL in determining Total Taxes on Operations (v3280.00) as it does in determining the current provision. The differences are that it uses Taxable Operating Profit (v3210.00) as the measure of income instead of Taxable Income (v31400.00) and that it uses 3250.xx and 3260.xx instead of 3150.xx and 3160.xx.
Modeling Valuation Accounts

Subtopics

- Entering Data for Shareholder Value Method Accounts
- Entering Data for Dividend Discount Method Accounts
- Entering Data for Economic Profit Method Accounts
- Entering Data for Other Valuation Accounts

Use the Tax and Valuation Options dialog to access Shareholder Value (a Free Cash Flow method), Dividend Discount (a Free Cash Flow method) and Economic Profit options.

Entering Data for Shareholder Value Method Accounts

The Shareholder Value Method measures future free cash flows (from operations) less investments in fixed and working capital. It is not one period measure, but rather a measure of multiple year future free cash flows, discounted at the weighted average cost of capital. This approach is used by public companies to compare management’s expectations to current market price of their stock and by private companies or divisions of large public companies, to obtain a proxy of the market value of their businesses.

For a more detailed explanation of these items, see “Valuation Theory” on page 153.

To enter data for Shareholder Value Method Accounts (SVA):

1. **Access Tax and Valuation Options.**
   
   See “About Tax and Valuation Options” on page 143.

2. **Select SVA tab.**

3. For **Cost of Capital**, click Inputs and enter the account values.
   
   The **Cost of Capital** is the weighted average costs of debt and equity. The rate should be entered as a percentage, not a decimal (5.57% is input at 5.57, not .0557). Oracle recommends that you use one rate for all periods.

4. For **Long-Term Cost of Capital**, click Inputs and enter account values.
   
   The **Long-Term Cost of Capital** is used to calculate the residual value. The rate should be entered as a percentage, not a decimal.

5. In **Method to Use**, select a method.

   There are six different residual value methods:
   
   - Perpetuity Method
   - Growth in Perpetuity
   - Value Growth Duration
   - Price/Earnings Ratio
   - Market-to-Book Ratio
6 In Residual Value Tax Rate (%), enter a rate.

The residual value income tax rate is applied during the years following the forecast period.

7 In Perpetuity Growth Rate (%), enter a rate.

Enter the perpetuity growth rate when using the Growth in Perpetuity method to calculate residual value.

8 In Value Growth Duration (years), enter the number of years.

Enter the value growth duration when using the Value Growth Duration method to calculate residual value.

9 For Normalized Profit Adjustment, click Inputs and enter the values.

You can use this item to change or “normalize,” for valuation purposes of the period-by-period values for Taxable Operating Profit that you consider to be abnormally high or low due to prevailing industry or economic conditions that you do not expect to continue.

If you enter adjustments for periods, the amount is added to Taxable Operating Profit for each period entered and used in calculating Residual Value. While it affects the valuation, it does not change Operating Profit as it appears on the Income Statement.

Note: This adjustment is only appropriate if you are using one of these residual value methods that use a perpetuity cash flow in its calculation: Perpetuity Method, Growth in Perpetuity and Value Growth Duration.

10 For Market-to-Book Ratio, click Inputs and enter the values.

Enter the Market-to-Book Ratio when using the Market-to-Book Ratio method to calculate Residual Value.

11 For Price / Earnings Ratio, click Inputs and enter the values.

Enter the Price/Earnings Ratio when using the Price/Earnings method to calculate Residual Value.

12 For Debt Discount / (Premium) (%), click Inputs and enter the values.

The Debt Discount/(Premium) is used in the calculation of the Market-To-Book Residual Value and Price/Earnings Residual Value. The Debt Discount/(Premium) is used to adjust the book value of Debt and/or Preferred Stock to market values.

13 For Normalized Earnings Adjustment, click Inputs and enter the values.

You can use this to change or “normalize,” for valuation purposes of the period-by-period values for Income Available for Common Shareholders that you consider to be abnormally high or low due to prevailing industry or economic conditions in that year which are not expected to continue.

If you enter adjustments for periods, the amount is added to Income Available for Common Shareholders used in calculating the Price/Earnings Residual Value for valuation. It does not change Income Available for Common Shareholders as it appears on the Income Statement.
14 For Liquidation Value, click Inputs and enter the values.

This item represents your estimate, in future value currency, of what the “price tag” of the business is in each year of the forecast period, based on your expectations of prevailing conditions in that period. You must incorporate the costs of liquidation, including such items as transaction cost and recapture tax in this value.

15 Click OK.

### Entering Data for Dividend Discount Method Accounts

The Dividend Discount Method (DDM) measures the value of a company’s assets by estimating the expected future cash flows to investors, (i.e., dividends) and discounting those future flows by the investors’ required rate of return to determine the present value of the future cash stream.

See “Valuation Theory” on page 153.

Entering Data for Dividend Discount Method Accounts:

1. **Access Tax and Valuation Options.**
   See “About Tax and Valuation Options” on page 143.

2. **Select the DDM tab.**

3. **For Cost of Capital, click Inputs and enter the account values.**
   The Cost of Capital is the weighted average costs of debt and equity. The rate should be entered as a percentage, not a decimal (5.57% is input at 5.57, not .0557). It is recommended that you use one rate for all periods.

4. **For Long-Term Cost of Capital, click Inputs and enter account values.**
   The Long-Term Cost of Capital is used to calculate the residual value. The rate should be entered as a percentage, not a decimal.

5. **In Method to Use, select an option from the drop-down list.**
   When performing a valuation using the Free Cash Flow method, you can select from six different residual value methods:
   - Perpetuity Method
   - Growth in Perpetuity
   - Value Growth Duration
   - Price/Earnings Ratio
   - Market-to-Book Ratio

6. **In Long-Term Return on Book Equity (%), enter a value.**
   Enter the Long-Term Return on Book Equity which is used to compute the Perpetuity Affordable Dividend.

7. **In Target Leverage Ratio (%), enter a value.**
Enter the Target Leverage Ratio (%) when using the Perpetuity, Growth in Perpetuity or Value Growth Duration methods to calculate residual value.

8 **In Perpetuity Growth Rate (%), enter a value.**

Enter the Perpetuity Growth Rate (%) when using the Growth in Perpetuity Method to calculate residual value.

9 **In Value Growth Duration (years), enter a value.**

Enter the Value Growth Duration (years) when using the Value Growth Duration Method to calculate residual value.

10 **For Market-to-Book Ratio, click Inputs and enter the account values.**

Enter the Market-to-Book Ratio which is used in the calculation of Market-to-Book Equity Residual Value.

11 **For Price / Earnings Ratio, click Inputs and enter the account values.**

Enter the Price/Earnings Equity Ratio which is used in the calculation of Price/Earnings Equity Residual Value.

12 **For Normalized Earnings Adjustment, click Inputs and enter the account values.**

You can use this item to change or “normalize,” for valuation purposes of the period-by-period values for Income Available for Common Shareholders that you consider to be abnormally high or low due to prevailing industry or economic conditions in that year which are not expected to continue.

If you enter adjustments for periods, the amount is added to Income Available for Common Shareholders used in calculating the Price/Earnings Equity Residual Value for valuation. It will not change Income Available for Common Shareholders as it appears on the Income Statement.

13 **For Liquidation Value, click Inputs and enter the account values.**

This item represents your estimate, in future value currency, of what the “price tag” of the business is in each year of the forecast period, based on your expectations of prevailing conditions in that period. You must incorporate the costs of liquidation, including such items as transaction cost and recapture tax in this value.

14 **Click OK.**

**Entering Data for Economic Profit Method Accounts**

The Economic Profit (EP) method assumes that a company's value equals the amount of invested capital plus a premium equal to the present value of the economic profit in each forecast year. Economic Profit equals the spread between the rate of return on invested capital and the rate of return on required capital, multiplied by the invested capital.

See “Valuation Theory” on page 153.
See “About Tax and Valuation Options” on page 143.

2 Select EP tab.

3 For Required Return on Capital, click Inputs and enter the account values.
   The Required Return on Capital is the discount rate used to determine the discount factor which is used to calculate the present value of economic profit. The rate should be entered as a percentage, not as a decimal.

4 For Long Term Required Return, click Inputs and enter the account values.
   Enter the Long Term Required Return which is the rate used to discount the residual value of the economic profit. The rate should be entered as a percentage, not as a decimal.

5 In Residual Value Tax Rate (%), enter a value.
   Enter the Residual Value Tax Rate which is applied during the years following the forecast period.

6 In Residual NOPAT Adjustment, enter a value.
   Enter adjustments to NOPAT for the residual period.

7 For NOPAT Adjustment, click Inputs and enter the account values.
   Enter adjustments to NOPAT.

8 For Assets Adjustment, click Inputs and enter the account values.
   Enter the Asset Adjustment which is used to adjust Book Value.

9 For Liabilities Adjustment, click Inputs and enter the account values.
   Enter the Liabilities Adjustment which is used to adjust Book Value.

10 Click OK.

## Entering Data for Other Valuation Accounts

On the Other Valuations tab, select to have your cash flows discounted at mid-period or end-of-period. Mid-period discounting assumes that cash flows arrive (on average) at the mid-point of a period; end-of-period discounting assumes that the cash flows all arrive at the end of a period. You can enter some other adjustments to each of the three valuation methods used in Strategic Finance.

See “Valuation Theory” on page 153.

- Entering Data for Other Valuation Accounts:
  1. Access Tax and Valuation Options.
     See “About Tax and Valuation Options” on page 143.
  2. Select Other Valuation tab.
  3. In Current Stock Price, enter a value.
Enter the stock price as of the last day in history. This value can be compared to the Shareholder Value per Share, Equity Value Per Share and Economic Profit Shareholder Value per Share to see if the market seems to be undervaluing or overvaluing the stock.

**Note:** Enter the current stock price for the company you are modeling to use for comparison to the Shareholder Value per Share on the valuation reports. This amount appears at the bottom of the reports with the Shareholder Value per share. The Premium/Discount Over/Under Market (%) account calculates and display the percent that the Shareholder Value per Share is over or under the current stock price.

4 Select a **Calculate Discount Factor** as option.
   - End-of Period. Select the End-of-Period Discount Factor if discounting is to be done at the end of a period.
   - Mid-Period. Select the Mid-Period Discount Factor if discounting is to be done at the mid-point of a period.

5 In **Market Value of Debt**, enter a value.
   Enter the Market Value of Debt which is calculated using the yield to maturity of all debt instruments in a company’s debt portfolio. The Market Value of Debt must be deducted from Corporate Value or Economic Profit Corporate Value to arrive at Shareholder Value or Economic Profit Shareholder Value.

6 In **Underfunded Pension Liabilities**, enter a value.
   Enter Underfunded Pension Liabilities which must be deducted from Corporate Value or Economic Profit Corporate Value to arrive at Shareholder Value or Economic Profit Shareholder Value.

7 In **Market Value of Other Obligations**, enter a value.
   Enter the Market Value of Other Obligations which represents the market value of other obligations not included in Market Value of Debt or Underfunded Pension Liabilities. Market Value of Other Obligations must be deducted from Corporate Value or Economic Profit Corporate Value to arrive at Shareholder Value or Economic Profit Shareholder Value.

8 In **Investments in Stocks and Bonds**, enter a value.
   Enter the Investments in Stocks and Bonds which represents the market value of the company’s current portfolio of long-term investments in stocks and bonds. Investments in Stocks and Bonds are included in Corporate Value.

9 In **Cost/Equity Adjustment**, enter a value.
   Enter the adjustment to be added to Corporate Value for an investment using the Cost or Equity method of consolidation. This adjustment should be the ownership % * Shareholder Value of the investment.
   This adjustment calculates if the investment is consolidated into the current Strategic Finance file using the Cost or Equity method of consolidation.

10 In **Minority Interest Adjustment**, enter a value.
Enter the adjustment to be subtracted from Shareholder Value for an investment using the Minority Interest method of consolidation. This adjustment should be the ownership % * Shareholder Value of the investment.

This adjustment is automatically calculated if the investment is consolidated into the current Strategic Finance file using the Minority Interest Method of consolidation.

11 **In Market Value of Other Liabilities, enter a value.**

Enter the Market Value of Other Liabilities - DDM which is deducted from the Estimated Equity Value.

12 **In Market Value of Other Assets, enter a value.**

Enter the Market Value of Other Assets - DDM which is added to the Estimated Equity Value.

13 **In Cost/Equity Adjustment, enter a value.**

Enter the adjustment to be added to Economic Profit Corporate Value for an investment using the Cost or Equity method of consolidation. This adjustment should be the ownership % * Economic Profit Shareholder Value of the investment.

This adjustment is automatically calculated if the investment is consolidated into the current Strategic Finance file using the Cost or Equity method of consolidation.

14 **In Minority Interest Adjustment, enter a value.**

Enter the adjustment to be subtracted from Economic Profit Shareholder Value for an investment using the Minority Interest method of consolidation. This adjustment should be the ownership % * Economic Profit Shareholder Value of the investment.

This adjustment is automatically calculated if the investment is consolidated into the current Strategic Finance file using the Minority Interest Method of consolidation.

15 **Click OK.**

**Valuation Theory**

**Subtopics**

- Free Cash Flow Methods
- Shareholder Value Method
- Dividend Discount Method
- Mid-Period versus End-of-Period Discounting
- Economic Profit Method
- Cost of Capital for Free Cash Flow Methods
- Residual Value for Free Cash Flow Methods

Strategic Finance supports three methods of valuation. The Shareholder Value and Dividend Discount models are cash flow methods that provide information about the sources of value creation, the duration of the value creation period, and the discounted value of the future stream of cash flows. One of the limitations in traditional dividend discount models is that they typically
relate cash dividends to earnings, an accrual accounting flow, which can mask capital structure and funding effects. The dividends a company can afford to pay depend upon the cash consequences of its planned sales growth, cash margins on sales, cash taxes, required working and fixed capital investments, constrained by its target capital structure. Strategic Finance captures these constraints and opportunities explicitly, providing support for your valuation assumptions.

The Economic Profit model is a “mixed” model (mixing cash flow and book value concepts) often called the Economic Profit Model. This approach discounts an expected cash flow in excess of a capital charge (cost-of-capital multiplied by the previous period’s adjusted book value).

All three methods can compute identical equity values, given certain assumptions (e.g., keeping the ratio of market debt to market equity constant). In practice, the results of the models are often different, because the required assumptions have been ignored. Experienced practitioners not only can explain the differences (“small”, in most cases), but often gain insights by comparing the results from the different approaches.

Free Cash Flow Methods

The free cash flow methods, Shareholder Value and Dividend Discount, measure the value of a business based on its ability to generate returns on investments in excess of its weighted average cost of capital.

Excess funds can be reinvested by the business or paid to the shareholders as dividends. In the first case, the business might invest in such areas as plant & equipment, additional working capital, or acquisitions, expecting to receive returns in excess of the cost of capital for the selected strategy.

Alternatively, the shareholders can reinvest their dividends in a capital market to earn risk-adjusted rates of return.

Shareholder Value Method

In simplest terms, the value of a company or business equals the combined values of its debt plus its equity. In Strategic Finance, the value of the whole firm to both debt and equity holders is called “corporate value;” the value of the equity portion is called “shareholder value”.

In general: this is

\[(\text{Corporate Value}) = \text{“Debt” + Equity}\]

The “debt” portion of corporate value refers to the current value of the firm’s total obligations, which include:

1. Market value of all debt
2. Underfunded Pension Liabilities
3. Other Obligations - preferred stock (market value), golden parachutes, contingent liabilities, etc.
Note: You should use the market value rather than the book value of debt because during periods of rising interest rates, market values fall below book values. Using book values overstates the value of the liabilities, thus understates shareholder value. The reverse is true when interest rates are falling.

Corporate Value = Debt + Shareholder Value

where: Debt = Market Value of Debt + Underfunded liabilities + Market value of other obligations

Rearranging the corporate value equation to solve for Shareholder Value:

Shareholder Value = Corporate value - Debt

To determine shareholder value, you first calculate the corporate value, the value of the total firm or business unit.

- “Corporate Value Components” on page 155
- “Value Drivers: Key Factors Affecting Corporate Value” on page 156

**Corporate Value Components**

Corporate value, the economic value of the business or strategy, consists of:

- The present value of all expected cash flow from operations during the forecast period, known as discounted cash flows.
- The value of the firm beyond the forecast period, known as residual value.

The cash flows are “discounted” by the firm’s “cost of capital,” or required rate of return, which takes into account the firm’s level of both business and financial risk.

There is a third component, the value of investments in assets not involved in operations (passive investments). Their value can be added as a “plugged” number or separately modeled and added to Corporate value. See (c) below.

In general, then: Corporate Value = Value created during the Forecast Period (discounted cash flows) + Value after the Forecast Period (residual value)

**Discounted Cash Flows Component**

The discounted cash flows (or, more precisely, the “cumulative present value of cash flows”) represent the expected net cash inflows to the business, independent of the firm’s financing or dividend policies:

In general, then:

Cash Flow from Operations = Actual dollar inflows + Out of Pocket Dollars

In Strategic Finance, after you’ve determined the cash flow from operations for each year in the forecast period, those flows are discounted back to present-value terms, using a discount factor based on the cost of capital.
Residual Value Component

Only a small portion of a company’s market value can be reasonably attributed to its estimated cash flows during a forecast period of 5 or 10 years. The remaining portion, called the residual value, typically represents well over 50% (and usually closer to 80%) of the total corporate value. There are several different ways to measure this value.

Passive Investments Component

For a precise estimation of corporate value, a third component must also be included - the current market value of investment holdings. Examples include: marketable securities, investments in stocks and bonds, investments in unconsolidated subsidiaries, an overfunded pension plan, and liquid non-operating assets. These items are not accounted for in the cash flows, but they have a value to the firm, so their value must be added to the other two components.

Note: The reason that marketable securities are not included in the working capital requirements used in estimating cash flow is that they represent cash holdings beyond those necessary for operating the business. Note also that debt (specifically, the current portion of long-term debt) is not included. Debt holders and equity holders hold the “claims” to the net cash flows generated by the firm. They are part of the capital structure and to include them in the investment requirements is “double counting”.

To summarize, Corporate value has three components: Cash flows, residual value and investments

Value Drivers: Key Factors Affecting Corporate Value

There are six key macro variables affecting values of discounted stream of cash flow from operations:

- Sales Growth Rate (g)
- Operating Profit Margin (p)
- Cash Taxes on Operating Profit (t)
- Fixed Capital Investment (f)
- Incremental Working Capital Investment (w)
- Cost of Capital (K)

These variables, or value drivers, determine each year’s cash flow from operations. After each year’s cash flow from operations is calculated, those flows are each discounted based on the cost of capital (K).

Because these value drivers determine the expected cash flow from operations, you can evaluate these factors to determine which ones have the greatest impact on corporate shareholder value.

To learn the value drivers, use Scratchpad to estimate corporate value, so you can focus on key valuation variables.
See “Using ScratchPad Valuation Calculator” on page 197.

The inputs are:

1. Number of Forecast Periods
2. Sales (Last Historical Period)
3. Sales Growth Rate (G)
4. Operating Profit Margin (P)
5. Incremental Fixed Capital Investment (F)
6. Incremental Working Capital Investment (W)
7. Tax Rate on Operating Profit (Tc)
8. Residual Value Income Tax Rate (Tr)
9. Cost of Capital (K)
10. Marketable Securities and Other Investments
11. Debt and Other Obligations
12. No. of Common Shares

After completing your scratchpad analysis, which holds each of these variables constant throughout the forecast period, you can use a more explicit model in Strategic Finance to evaluate these variables in greater detail and changing over time. Using the Scenario Manager, you can determine the impact on shareholder value of changing variables contributing to value drivers.

**Dividend Discount Method**

The Dividend Discount Model calculates the value of the equity of a firm directly from the expected cash flows received by the shareholders—the Dividends. These flows are discounted at the cost of equity. The advantage of this method is that it enables you to compute Shareholder Value directly from the flows that the shareholders are actually forecast to receive.

Dividend Discount Model has disadvantages:

- If a firm adopts a fixed dividend policy, that firm’s leverage may drift from the target leverage. If a firm is accumulating and investing cash in the form of marketable securities, leverage falls as does the Cost of Equity used to discount the dividend flows. If a firm is taking on debt to maintain its dividend policy, leverage and the Cost of Equity rise. Because the Cost of Equity is sensitive to changes in leverage, it needs to be adjusted for these changes in leverage to produce an accurate valuation.

- If a firm is accumulating cash or debt, sooner or later it needs to adjust the flows to shareholders to account for this. Strategic Finance assumes that, if such an adjustment is required, it can be done at the end of the forecast period.

- If a firm is accumulating cash, it is de-levering and its Cost of Equity is being reduced. Consider the firm as engaging in two businesses: the normal business of the firm, and the business of investment (which you would expect to be less risky than the normal business of the firm).
If a firm adjusts its dividend policy to maintain a constant leverage, it is paying what Strategic Finance refers to as the “Affordable Dividend.” This eliminates the problems with changes in leverage, but few firms are expected to pay their Affordable Dividend in each year. Thus, you would no longer be forecasting the expected real flows to shareholders.

See “Mid-Period versus End-of-Period Discounting” on page 158

**Mid-Period versus End-of-Period Discounting**

Consider when a firm is expected to pay its dividends. Most firms pay dividends on a quarterly or semi-annual basis. Mid-period discounting should be used here. If a firm paid only annual dividends, end-of-period discounting is appropriate.

**Economic Profit Method**

Although this method mixes cash and book items, it can lead to correct equity valuations if applied carefully. There are many ways to formulate this model, the most common being: \( \text{EP} = \text{Net Operating Profit} - \text{Capital Charge} \)

where: \( \text{Capital Charge} = \text{Cost of Capital} \times \text{Adjusted Book Value in Previous Period} \)

The EP is calculated each period and discounted at the Cost of Capital to get a present value (PVEP). Adjusted Book Value is increased by the total incremental net investment for each period, so in general, a growing firm increases Capital charge over time. Then: \( \text{Corporate Value} = \text{PVEP} + \text{Beginning Adjusted Book Value} \)

which should be the same as the Corporate Value computed using the Shareholder Value Method. The Equity Value can be computed by the usual method of subtracting the market value of debt and other obligations and adding back the market value of investments.

If the Adjusted Book Value is a proxy for the owner investment in the business, the Capital Charge is the hurdle that must be reached to provide a break-even return on that investment. The Adjustments (on both the asset and liability side of the equation) that are made to Book Value make it a more reasonable proxy for owner investment in the firm, whether in the form of cash or as foregone dividends. The Economic Profit Model focuses management’s attention on obtaining returns greater than the “floor” imposed by the Capital Charge.

The problems with the Economic Profit approach are:

- Beginning Adjusted Book Value is used as a proxy for the investment in the firm, but this number requires you to decide on the adjustments necessary to obtain the actual economic value of the firm. If the Adjusted Book Value is higher than the actual economic value, Economic Profit in the forecast period appears to be lower than it actually is—possibly causing a firm that is actually creating value to appear to be destroying value. For firms whose economic value can be measured in market terms, requiring historical, albeit adjusted, book values as part of the model is an unnecessary complication.

- Economic Profit is a short-term measure which may cause management to focus on the “wrong” targets, leading to dysfunctional behavior. Many value-creating projects don’t return the cost of capital in their first or second year, although the long-term cash flows
easily make up for the investment required in the early years of the project. A manager measured on EP may not propose such a project because of the negative Economic Profit impact in the short-term.

- The Economic Profit Model usually assumes that a firm can generate excess returns indefinitely, which runs counter to the idea that a firm creates value due to a competitive advantage that can only be maintained for a limited number of years.

**Cost of Capital for Free Cash Flow Methods**

The Cost of Capital (K) represents the weighted average costs of debt and equity, in proportion to the levels specified by the company’s debt/equity ratio (based on market rather than book values).

The “cost” refers to the fact that suppliers of capital demand a return on their investment, and that return represents a cost to the recipient (i.e., the firm).

The Cost of Debt is less than the Cost of Equity to the borrower for these reasons:

1. The interest portion of the return to debtholders is tax deductible.
2. Debtholders usually require a lower return because:
   a. Debtholders’ claims have a higher priority than stockholders’ claims in the event of liquidation.
   b. Debt has a fixed rate of return, whereas the return on stock depends on company performance.

The returns demanded by debtholders and stockholders are both important because the Shareholder Value Method discounts after-tax, pre-interest cash flows—cash flows on which both debtholders and shareholders have claims. The cost of capital, therefore, incorporates the claims of both these groups in proportion to their relative capital contribution. The cash flows discounted by the cost of capital yields corporate value. The market value of debt is subtracted from the corporate value to obtain shareholder value (the value of the equity).

By establishing a cost of capital, you are estimating a minimum acceptable rate of return. Returns above that rate create value for shareholders.

Most firms are comprised of different business units, each with a different exposure to macro-economic events. Not only should these units be analyzed as businesses, but each may well have a different cost of capital.

- “Recommendation to Use a Constant Cost of Capital” on page 160
- “Cost of Debt” on page 160
- “Cost of Preferred” on page 161
- “Cost of Equity” on page 161
- “Risk-Free Rate” on page 161
- “Beta of Equity” on page 162
- “Market Risk Premium” on page 162
**Recommendation to Use a Constant Cost of Capital**

From a practical matter, you should use a cost of capital that is constant over time in Strategic Finance. In other words, the cost of capital for each forecast period should be the same as the long-term cost of capital. Think of this cost of capital as being a “yield to maturity” concept. The alternative is to forecast a “term structure”. Except in very special situations, the value of attempting these forecasts is minimal. Another factor to consider is that the first few years of expected cash flows only contribute a small fraction of the firm’s total value, and that is when most of the potential capital structure changes occur. Consequently, even if you could estimate these changes, it would not change the firm’s calculated value.

Analysts occasionally claim, for a variety of reasons, that the cost of capital for a company changes over time and they want to change the cost of capital used in future periods. Here are two frequently cited reasons given for wanting to change the cost of capital, with the rationale for why the rate should remain constant:

1. **Claim:** “Interest rates are changing in the future, so our cost of capital should also be changing.”
   
   **Response:** Long-Term interest rates incorporate the market’s expectations of average future interest rates. Although future interest rates change, people cannot consistently outguess the real market changes.

2. **Claim:** “Although I feel reasonably confident about my forecast for next year, I’m less certain about the forecasts five years from now. Therefore I should use a higher cost of capital in later periods to discount those less certain cash flows.”
   
   **Response:** The discounting approach, in which cash flows are discounted by 1 divided by \((1+K)^n\), compounds the risk and reflects the assumption that the further into the future you project, the riskier the estimates are.

   **Note:** There are occasionally situations when the cost of capital during the forecast period is not the same as the long-term cost of capital, usually when the capital structure is expected to change dramatically over time. (e.g., the case of a typical LBO)

**Cost of Debt**

The Cost of Debt represents the after-tax cost of debt capital to a company. It can be determined in The Cost of Capital Calculator based on the rates you enter for the Yield to Maturity (YTM) and the Marginal Tax Rate.

It is important that the rate you enter is the current yield to maturity rather than the nominal cost of debt. The nominal or coupon rate (which is based on the face amount of the debt) determines the interest payment, but it does not necessarily reflect the actual cost of the corporation’s debt today. As required returns change (because of changing expectations about future inflation levels and economic conditions), the price of a debt issue changes so that the actual interest payments (the nominal rate multiplied by the face amount) and anticipated proceeds at maturity yield the investors their revised required return. The yield to maturity, not the nominal rate, fully reflects the current return demanded by debtholders and the rate at which debt should be replaced.
In estimating the Cost of Debt (yield to maturity), be sure to use a long-term rate. Short-term interest rates do not incorporate long-term expectations about inflation. In projecting financial data for 5 to 10 years into the future, you should use a cost of capital that is consistent with the long-term time horizon of the forecast. Also, even if a company routinely “rolls over” short-term debt as permanent financing, the long-term rate is still a better approximation of the future Cost of Debt because interest rates on long-term debt incorporate the expected cost of repeated short-term borrowing.

The Cost of Debt represents the future cost of debt over a long period. Use the yield to maturity on long-term debt.

Cost of Preferred
The Cost of Preferred represents the expected return to preferred stockholders. Like debt, you must enter the yield to maturity on preferred stock, but without the tax shielding.

Cost of Equity
The return expected by investors for an individual stock - referred to in Strategic Finance as the Cost of Equity - equals the Risk-Free Rate (RF) plus the Market Risk Premium multiplied by the stock’s beta (β):

Risk-Free Rate
The Risk-Free Rate (RF) is the rate of return investors expect from holding “safe” investments such as long-term U.S. government securities, which are considered virtually free of risk of default because of the stability of the U.S. government. The return demanded by investors consists of two elements: the “pure” or “real” interest rate (compensation for making the investment) and the compensation for expected inflation.

Risk-Free Rate = "Real" Interest Rate + Expected Inflation Rate

The rate of return on common stock (from dividends and stock price appreciation) is less certain (i.e., riskier) than the relatively predictable returns available from U.S. government bonds. As compensation for the higher risk involved in owning common stock, investors demand a rate of return on stocks that is greater than the Risk-Free Rate. Therefore the rate of return on stock equals the Risk-Free Rate plus a “risk premium” for holding that stock rather than holding U.S. government bonds.

For the Risk-Free Rate, it is wise to use the current rate on long-term government bonds, which is quoted daily in publications such as the Wall Street Journal and the Financial Times. The use of short-term rates such as the current rates on Treasury bills is not recommended because they incorporate expectations about only short-term (i.e., less than 90 days) inflation. Using the longest term Risk-Free Rate available incorporates expectations for inflation and interest rate fluctuations.
Beta of Equity

Individual stocks tend to be more or less risky than the overall market. The riskiness of a stock, measured by the variance of its return relative to the market's return is indicated by an index called “beta” (β).

- If $β = 1$, the stock's return fluctuates identically with the market's return.
- If $β > 1$, then the stock's return varies more than the market’s return, and therefore its risk exceeds that of the market as a whole.
- If $β < 1$, the stock's return varies less than the market's return, and therefore its risk is less than that of the market as a whole.

For example, if a stock's return normally moves up or down 1.2% when the market moves up or down only 1%, the stock has a beta of 1.2. The beta is used to calculate the Cost of Equity (the return expected by stockholders) as follows:

Cost of Equity = Risk Free + Beta * Market Risk Premium

Public Companies

Beta estimates are published by a number of brokerage and advisory services, including Value Line and Merrill Lynch. Check the beta listed in one of these services as a measure of the company’s past riskiness.

Private Companies

Check the betas listed in the preceding services for public companies that might be expected to share degree of market risk.

Beta is a past measure of riskiness. When making future projections, you should consider anticipated changes in the company's business or financial risk profile.

Note: If the company's Target Debt Capacity changes or you estimate a beta based on the beta of another company, you may need to adjust the beta for difference in financial risk. This is known as “unlevering” and “relevering” the beta.

Market Risk Premium

The market risk premium is the additional rate of return that must be paid over the risk-free rate to persuade investors to hold investments with systematic risk equal to the market portfolio.

The market risk premium is calculated by subtracting the expected long-term risk-free rate from the expected market return. These figures should model future market conditions closely. There are two approaches:

- “Historical” or “ex-post” risk premia approach, which claims that past market returns are the best estimator of future market returns. See “Historical (Ex-Post) Risk Premium” on page 163.
“Forecast” or “ex-ante” risk premia approach, which claims that current market information can be used to improve the accuracy of historically based estimates. See “Forecast (Ex-Ante) Risk Premium” on page 163.

**Historical (Ex-Post) Risk Premium**

The historical approach relies on the assumption that the market risk premium is basically stable over time. It uses an arithmetic average of past risk premia to estimate future risk premia. Because it relies on actual historical information, this method can be considered an objective measure of the long-term expected market risk premium.

However, those who use this method must decide subjectively how many historical periods to use in the average. Some people believe that using the longest available data period is most objective. Since market statistics have been monitored since 1926, this period is from 1926 until today. Other people select milestones such as World War II, on the assumption that the risk premium is more stable since that time.

**Forecast (Ex-Ante) Risk Premium**

Other financial professionals believe that information besides historical data can be useful in predicting future market risk premia. They believe that there may have been structural changes in investment markets that affect the market risk premium and therefore historical estimates should be modified by or replaced altogether with, present expectations of future market conditions. This approach is called “forecast,” “ex-ante” or “future” risk premium determination.

To calculate a forecast risk premium, a forecasted risk-free rate is subtracted from a forecasted market return. The current yield curve is a valuable source of information about forecasted risk-free rates. It is composed of the current yields to maturity of risk-free bonds of various maturities. Because future rates can be “locked in” today and realized later, many people believe that these rates offer accurate estimates of future rates. Therefore, they use these rates as a proxy for future risk-free rates in calculating forecast risk premia.

There is much less agreement on how to forecast future market returns. In fact, the main problem with the forecast approach is that it requires a great deal of subjective judgment by the person doing the calculation. Which forecast estimates for the expected market return should be used? Should historical information be used at all? If so, what time period or periods is used and how should they be weighted with forecast estimates?

Methods of forecasting future market conditions are as varied as the assumptions on which they are based. A desirable forecast risk premium takes full advantage of the information currently available in the yield curve, includes structural changes in the risk premium, but involves a minimum amount of subjective judgment.

**Residual Value for Free Cash Flow Methods**

- “Perpetuity for Shareholder Value Method” on page 164
- “Growth in Perpetuity for Shareholder Value Method” on page 164
Perpetuity for Shareholder Value Method

The Perpetuity Method measures Residual Value by assuming that the firm provides a level stream of cash flows to its stakeholders forever. This assumption seems counter-intuitive. You expect that your firm continues to grow.

But, you can use a simple Perpetuity to compute Residual Value. Strategic Finance computes the perpetuity using a pre-investment cash flow stream. Because this stream doesn’t include investment, the issue of future growth can be simplified by assuming that future investments earn exactly at the firm’s Long-Term Cost of Capital rate—in other words, the Net Present Value of new investment after the forecast period is zero. (Another way to look at it is that the Internal Rate of Return on new investment equal the Long-Term Cost of Capital.)

Next it is necessary to determine which flows accrue to your firm in Perpetuity. Strategic Finance uses the after-tax value of Operating Profit, which includes Depreciation. (Depreciation represents the amount of investment needed to replace physical assets that wear out or become obsolete.) You can adjust this value if you believe that the last forecast period’s Operating Profit is not representative of the on-going Operating Profit for the firm -- similar to the adjustment to Earnings in the P/E Ratio Method.

The formula for Perpetuity in Arrears (that is, when the payment occurs at the end of the period) is as follows:

\[
\text{(Operating Profit + Operating Profit Adj.)} \times (1 - \text{RV Tax Rate}) / \text{Long-Term Cost of Capital}
\]

where:

<table>
<thead>
<tr>
<th>Operating Profit</th>
<th>(v1150)</th>
<th>Taxable Operating Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Profit Adj.</td>
<td>(v5110)</td>
<td>Normalized Operating Profit Adj.</td>
</tr>
<tr>
<td>RV Tax Rate</td>
<td>(v4.00.560)</td>
<td>Residual Value Tax Rate</td>
</tr>
<tr>
<td>L-T Cost of Capital</td>
<td>(v5005)</td>
<td>Long-Term Cost of Capital</td>
</tr>
</tbody>
</table>

Growth in Perpetuity for Shareholder Value Method

This variation of the Perpetuity Method assumes that the cash flows grow (or decay) at a compound rate of \( g \) forever. This method, usually referred to as the Gordon Model, is characterized by the \( K - g \) term in the denominator and next year’s cash flow in the numerator.

The main limitation to this approach is that it may not fully recognize the cash outflows for additional investments that are likely to be required for continued growth. Also, it ignores capital structure: the growing cash flows can often lead to severe changes in capital structure (e.g., high debt/equity ratios) that are undesirable or economically unrealistic. Finally, the method makes
no assumption about the economic return on the investment required for the growth. Thus, the net present value of the growth in perpetuity can yield a value less than, equal to or greater than that of the Perpetuity Method (where the economic assumption of growth yielding NPV = 0 is invoked).

**Note:** As perpetuity growth rates approach the long-term cost of capital, the residual value rises toward infinity - because the denominator in the formula below goes toward zero - which is clearly not a reasonable assumption.

### Value Growth Duration for Shareholder Value Method

The Value Growth Duration Method enables you to assume that the post-investment cash flows that the stakeholders receive increase at a specified growth rate for a specified number of years. Thus, it explicitly assumes that value creation occurs after the forecast period but not indefinitely -- an assumption many investors consider reasonable. What is unclear for this method is how to estimate that growth rate, especially given that it needs to take investment into account, and the length of time horizon for value-creating growth.

The Value Growth Duration Method starts with the formula for a Growing Perpetuity of one dollar in Arrears: \( \frac{(1 + g)}{(K - g)} \)

where:

<table>
<thead>
<tr>
<th>( g )</th>
<th>( (v4.00.520) )</th>
<th>Perpetuity growth rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>( K )</td>
<td>( (v5005) )</td>
<td>Long-Term Cost of Capital</td>
</tr>
</tbody>
</table>

However, Strategic Finance assumes the time horizon is limited to a fixed number of years. Thus, in the Nth year, at the end of the Value Growth Duration, Strategic Finance converts from a Growing Perpetuity to a simple Perpetuity.

### Price/Earnings Ratio for Shareholder Value Method

This is one of the two common “rule-of-thumb” techniques supported by Strategic Finance (the similar Market / Book Ratio method follows). The P/E Ratio method multiplies an estimate for a future P/E ratio by the Net Income in the last period to determine an equity value.

To calculate the Residual Value using the Price/Earnings Ratio Method, Strategic Finance uses Income Available for Common as earnings, which is net of Preferred Dividends. In addition, because there is the possibility that the final forecast period’s earnings are atypical and not representative of what the firm would earn going forward, Strategic Finance includes a “Normalized Earnings Adjustment” variable to enable you to adjust the earnings accordingly.

Finally, because this method estimates an equity value, Strategic Finance adds back the future market value of the debt to get the corporate value. Strategic Finance enables you to determine the book value of the debt and enables you to input a Debt Discount factor to adjust the book value of the debt to market value.

The formula for the Price/Earnings Ratio Residual Value Method (v5200) is:
P/E * (Earnings + Earnings Adj.) + Book Value of Debt - Debt Discount

where:

<table>
<thead>
<tr>
<th>P/E</th>
<th>(v5130) User-supplied P/E Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earnings</td>
<td>(v1850) Income Available for Common</td>
</tr>
<tr>
<td>Earnings Adj.</td>
<td>(v5140) Normalized Earnings Adjustment</td>
</tr>
<tr>
<td>Book Value of Debt</td>
<td>(v3510) Total Debt and Preferred Stock</td>
</tr>
<tr>
<td>Debt Premium</td>
<td>(v5150) Debt Discount/(Premium)</td>
</tr>
</tbody>
</table>

**Liquidation Value for Shareholder Value Method**

The simplest of the supported methods for determining Residual Value is the Liquidation Value method. Using this method, you enter the estimate worth of the company at the end of the forecast period. That amount should include the cash required to retire all the debt of the firm.

You can enter Liquidation Residual Value in v5180. This can include a formula based on key financial accounts in your analysis.

**Market-to-Book Ratio for Shareholder Value Method**

The Market-to-Book Ratio method for calculating Residual Value is similar to the Price/Earnings Ratio method. It uses a “rule-of-thumb” for determining the equity value of a company and, like the P/E method, must be adjusted by adding back the value of the debt to obtain corporate value.

The Market-to-Book Residual Value (v5190) is calculated as follows:

M/B * Common Equity + Value of Dept - Debt Discount

where:

<table>
<thead>
<tr>
<th>M/B Ratio</th>
<th>(v5120) User-supplied Market-to-Book Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Equity</td>
<td>(v2890) Common Equity</td>
</tr>
<tr>
<td>Book Value of Debt</td>
<td>(v3510) Total Debt and Preferred Stock</td>
</tr>
<tr>
<td>Debt Discount</td>
<td>(v5150) Debt Discount/(Premium)</td>
</tr>
</tbody>
</table>
In This Chapter

- About Worksheets .......................................................... 167
- Using Worksheets ............................................................ 167
- Linking to Account Spreadsheets ...................................... 169
- Designing Worksheets ...................................................... 169

About Worksheets

Worksheets are spreadsheets for entering and calculating data outside the main financial model. You can use them to detail information that feeds into the model, but does not need be expressed directly in the model. You can enter Worksheet data manually, from Excel, or use formulas to calculate values. Once data is in a Worksheet, you can link it into the financial model on the Accounts spreadsheet. Each Strategic Finance file comes with a built-in worksheet. It can be accessed by selecting the Worksheet tab to the left of the Accounts tab.

Using Worksheets

Subtopics

- Guidelines
- Creating Worksheets
- Manually Entering Data into Worksheets
- Copying and Pasting Data into Worksheets
- Creating Formulas in Worksheets
- Reading Files into Worksheets

Guidelines

- When you copy a range of cells on the Worksheet and to paste on the Account Spreadsheet:
  - Highlight a range of target cells with a number of rows and columns equal to the size of those copied, or
  - Highlight only the upper-left corner cell of the target, and the paste fills accordingly.
• Ensure that data linked to the Account Spreadsheet corresponds with the chosen forecast method. For example, if you are linking growth percentages, the forecast method should use a growth rate

**Creating Worksheets**

Worksheets display left of the Accounts spreadsheet.

➤ To create worksheets:
1. **Select Insert, then Worksheets.**
2. **Select the worksheet.**

**Manually Entering Data into Worksheets**

➤ To manually data into worksheets:
1. **Click on a cell.**
2. **Enter data.**

**Copying and Pasting Data into Worksheets**

You can copy and paste data into a worksheet from other applications.

➤ To paste data from another source into the worksheet:
1. **Open the source application, highlight the data and copy.**
2. **In the worksheet, highlight the cell or range and select Edit, then Paste.**

**Creating Formulas in Worksheets**

You can create formulas in worksheet cells. Formulas are stored until deleted from the cell.

➤ To create formulas within cells:
1. **In the worksheet, click a cell.**
2. **Enter a formula.**

 Begin with an equal sign and proceed with the formula. For example:

```
=SUM(B5:B18)
```

To reference a cell in your calculation, click that cell following a mathematical operator.
Reading Files into Worksheets

You can read data and formulas from Excel files into financial models. This:

- Copies the data, formulas, and text on all tabs
- Creates links from worksheets to models. To not overwrite accounts, update worksheet links regularly.

➢ To read Excel file data:
  1. In Strategic Finance, select a worksheet.
  2. Select File, then File Management, and then Read Excel File.
  3. Select files, then click Open.

Linking to Account Spreadsheets

You can link data in worksheet cells directly to the Account spreadsheet for use in financial models. When you are viewing the cells on the Account Spreadsheet, cells that include data linked from a worksheet are highlighted in green.

➢ To link data from worksheet to the Account spreadsheet:
  1. Select a worksheet.
  2. In the worksheet, highlight a cell or range of cells.
  3. Select Edit, then Copy Worksheet Link.
  4. Select the Account spreadsheet.
  5. In the Account spreadsheet, highlight a cell or range of cells.
  6. Select Edit, then Paste Worksheet Link.

Designing Worksheets

Define worksheet options to control the way worksheet data displays.

➢ To define Worksheet options:
  1. Select Analysis, then Worksheet Settings.
  2. Select Worksheet options:
     - Scale Percentages
       Scales percentages on the worksheet to translate into the proper percentage format on the Account spreadsheet.
     - Automatically Calculate Worksheets
Calculates worksheets whenever you enter data. Activates when you enter data and exit the cell. Without this option, you must manually refresh the report when you enter data.

3 In **Worksheets are scaled in**, select a scale:
   - **Default**
     Uses the scale in the source entity.
   - **Ones**
     \[ 1.0 = 1 \]
   - **Thousands**
     \[ 1.0 = 1,000 \]
   - **Millions**
     \[ 1.0 = 1,000,000 \]
   - **Billions**
     \[ 1.0 = 1,000,000,000 \]

4 Click **OK**.
About Dimensions

Subtopics

- Creating User-Defined Dimensional Structures
- Deleting Dimensions or Members
- Copying Dimensional Structures from Strategic Finance Files
- Assigning Dimensions to Accounts
- Allocating Aggregate Amounts to Lower-Level Values
- Viewing or Changing Dimension Information

Dimensions are a concise, intuitive way of organizing data. Each dimension is an attribute containing members, representing variations of the data. For example, the Region dimension might include the members North, South, East and West.

A dimension member is a part of a dimension—a dimension within a dimension. For example:

- January 2005 or 1Qtr05 are members of the dimension Time.
- Wholesale and Retail are members of the dimension Distribution Channel.
- Base, Optimistic, and Pessimistic are members the dimension Scenario.

Account instances are unique intersections of dimension members within accounts where values are stored. For example, Sales of Radios/Retail Stores, or Sales of Clothes/Retail Stores might be instances of the account Sales.

Creating User-Defined Dimensional Structures

Caution! When dimensional accounts contain data, adding child members deletes all data in the parent member.
Use these rules when naming dimension or members:

- Dimension names are validated against other dimensions.
- Member names must be unique—even across dimensions.
- Members are not case sensitive (South=souTh=SOUTH).
- Member cannot share names with dimensions.
- Dimension and member names can contain alphanumeric characters, spaces, hyphens, slashes, periods, commas, and colons.

To create user-defined dimensional structures:

1. Select Accounts, then Dimension, and then Maintenance.
2. **Option:** To create dimensions, click Add Sibling and enter a name.
3. **Option:** To create members, select a dimension, click Add Child, and enter a member name.
4. **Option:** To create nested members, select a member, click Add Child, and enter a member name.
5. Click **OK**.

**Deleting Dimensions or Members**

**Caution!** When dimensional accounts contain data, deleting child members deletes all data in the parent member.

To delete dimension or members:

1. Select Accounts, then Dimension, and then Maintenance.
2. Select a dimension or member.
   - Dimension and member children are also deleted.
3. Click **Delete**.
4. Click **OK**.

**Copying Dimensional Structures from Strategic Finance Files**

You can copy dimensional structures from locally-stored files (.alc).

To copy dimensional structures:

1. Open the destination file.
2. Select Accounts, then Dimension, and then Maintenance.
3. Select Copy From... to browse to the file.
4. **Optional:** For multiple sources, select the source type in Copy Dimensional Structure and click **OK**.
Assigning Dimensions to Accounts

When you assign a dimension to an account, those dimensions become another way of storing detailed information within the account.

To add one or more dimensions to accounts:

1. On the Accounts spreadsheet, select an account.
2. Select Accounts, then Dimension, and then Assign Dimension.
3. In Available Dimensions, select one or more dimension and click Add.

Selected dimensions move from Available Dimensions to Assigned Dimensions.

4. Optional: Select a dimension in Assigned Dimensions, and click Remove to remove dimensional assignments.
5. Click OK.

Strategic Finance adds an instance of that account for each member. In the example following, the account Other Operating Expenses (v1090) is assigned to the dimension Time, and displays instances for each member: Year, Month, and Week. See “Viewing Dimensional Accounts” on page 174.

Allocating Aggregate Amounts to Lower-Level Values

When data is entered in dimensional accounts and outputs are calculated, you can enter aggregate amounts at top or mid-level accounts and allocate them to the lower-level members in proportion to the lower-level values. These outputs are backsolved for inputs for the lower-level members.

To allocate dimensional accounts:

1. On the Accounts spreadsheet, select an aggregate dimensional account.
   For example: Sales/Stereos
2. Select Accounts, then Dimension, and then Account Allocation.
3. Under New Amount, enter the an amount of the aggregate account.
4. Click OK.

Strategic Finance allocate amounts to each year in proportion to the outputs for the Current Amount value. For example, you could change the allocation of the aggregate for 2001 by entering the New Amount of 40. Strategic Finance backs into dimensional data. For example, the New Amount of 40 is divided equally into each account dimension combination for 2001.
<table>
<thead>
<tr>
<th>Time Period</th>
<th>Current Amount</th>
<th>New Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>2002</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>2003</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>2004</td>
<td>50</td>
<td>40</td>
</tr>
<tr>
<td>2005</td>
<td>30</td>
<td>10</td>
</tr>
</tbody>
</table>

### Viewing or Changing Dimension Information

**Note:** When linking Strategic Finance to Essbase, enter the **Entity Name** and **Plan Year** defined in Essbase.

> To view or change dimension information:

1. Select **Accounts**, then **Dimension**, and then **Dimension Information**.
2. In **Entity Name**, enter a name.
3. In **Plan Year**, enter the year.
4. In **Variable Separator**, enter a character to separate Strategic Finance account names from dimensional instance names.
5. In **Dimension Separator**, enter a character to separate individual dimensional instances.
6. Select **Space before Symbol** to include spaces before variable and dimension separators.
7. Select **Space after Symbol** to include spaces after variable and dimension separators.
8. Click **OK**.

### Viewing Dimensional Accounts

After dimensions are assigned accounts, you select which dimensional accounts to display from the drop-down list in the upper-left corner, and clicking **Apply**.

- “**Dimensional Input View**” on page 174
- “**Dimensional Report View**” on page 177

### Dimensional Input View

When dimensions are first assigned to accounts, Strategic Finance automatically creates account instances according to the dimensional structure. These accounts are both input and calculated for aggregate values.
For example:

**Non-dimensional:**

<table>
<thead>
<tr>
<th>Account</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>Input</td>
</tr>
</tbody>
</table>

**Dimensional:**

<table>
<thead>
<tr>
<th>Account</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>Calc</td>
</tr>
<tr>
<td>Sales/North</td>
<td>Calc</td>
</tr>
<tr>
<td>Sales/Illinois</td>
<td>Calc</td>
</tr>
<tr>
<td>Sales/Illinois/Stereos</td>
<td>Input</td>
</tr>
<tr>
<td>Sales/Illinois/Televisions</td>
<td>Input</td>
</tr>
<tr>
<td>Sales/Michigan</td>
<td>Calc</td>
</tr>
<tr>
<td>Sales/Michigan/Stereos</td>
<td>Input</td>
</tr>
<tr>
<td>Sales/Michigan/Televisions</td>
<td>Input</td>
</tr>
<tr>
<td>Sales/South</td>
<td>Calc</td>
</tr>
<tr>
<td>Sales/Florida</td>
<td>Calc</td>
</tr>
<tr>
<td>Sales/Florida/Stereos</td>
<td>Input</td>
</tr>
<tr>
<td>Sales/Florida/Televisions</td>
<td>Input</td>
</tr>
<tr>
<td>Sales/Georgia</td>
<td>Calc</td>
</tr>
<tr>
<td>Sales/Georgia/Stereos</td>
<td>Input</td>
</tr>
<tr>
<td>Sales/Georgia/Televisions</td>
<td>Input</td>
</tr>
</tbody>
</table>

- “Dimension Order” on page 175
- “Dimension Level of Detail” on page 176
- “Selecting Specific Dimension Members” on page 177

**Dimension Order**

- To view dimension order:
  1. Select **View**, then **Dimension Settings**.
  2. Click the **Accounts** tab.
3 Select dimensions and then click **Apply** to change display or aggregation of dimensional accounts.

Accounts display in this order:

<table>
<thead>
<tr>
<th>Account</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>Calc</td>
</tr>
<tr>
<td>Sales/Stereos</td>
<td>Calc</td>
</tr>
<tr>
<td>Sales/Stereos/North</td>
<td>Calc</td>
</tr>
<tr>
<td>Sales/Stereos/Illinois</td>
<td>Input</td>
</tr>
<tr>
<td>Sales/Stereos/Michigan</td>
<td>Input</td>
</tr>
<tr>
<td>Sales/Stereos/South</td>
<td>Calc</td>
</tr>
<tr>
<td>Sales/Stereos/Florida</td>
<td>Input</td>
</tr>
<tr>
<td>Sales/Stereos/Georgia</td>
<td>Input</td>
</tr>
<tr>
<td>Sales/Televisions</td>
<td>Calc</td>
</tr>
<tr>
<td>Sales/Televisions/North</td>
<td>Calc</td>
</tr>
<tr>
<td>Sales/Televisions/Illinois</td>
<td>Input</td>
</tr>
<tr>
<td>Sales/Televisions/Michigan</td>
<td>Input</td>
</tr>
<tr>
<td>Sales/Televisions/South</td>
<td>Calc</td>
</tr>
<tr>
<td>Sales/Televisions/Florida</td>
<td>Input</td>
</tr>
<tr>
<td>Sales/Televisions/Georgia</td>
<td>Input</td>
</tr>
</tbody>
</table>

**Note:** Data for input accounts remains the same, regardless of order.

**Dimension Level of Detail**

Use dimension settings to display varying levels of detail such as member names, or only specific members. See “Selecting Specific Dimension Members” on page 177.

<table>
<thead>
<tr>
<th>Account</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales/Illinois</td>
<td>Calc</td>
</tr>
<tr>
<td>Sales/Illinois/Stereos</td>
<td>Input</td>
</tr>
<tr>
<td>Sales/Illinois/Radios</td>
<td>Input</td>
</tr>
<tr>
<td>Sales/Illinois/Televisions</td>
<td>Input</td>
</tr>
</tbody>
</table>
Selecting Specific Dimension Members

If you select <Selected Members>, the Dimension dialog enables you to display multiple members—for example, select North, Illinois, and Michigan, and click Apply to display:

<table>
<thead>
<tr>
<th>Account</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales/North</td>
<td>Calc</td>
</tr>
<tr>
<td>Sales/Illinois</td>
<td>Calc</td>
</tr>
<tr>
<td>Sales/Illinois/Stereos</td>
<td>Input</td>
</tr>
<tr>
<td>Sales/Illinois/Radios</td>
<td>Input</td>
</tr>
<tr>
<td>Sales/Illinois/Televisions</td>
<td>Input</td>
</tr>
<tr>
<td>Sales/Michigan</td>
<td>Calc</td>
</tr>
<tr>
<td>Sales/Michigan/Stereos</td>
<td>Input</td>
</tr>
<tr>
<td>Sales/Michigan/Radios</td>
<td>Input</td>
</tr>
<tr>
<td>Sales/Michigan/Televisions</td>
<td>Input</td>
</tr>
</tbody>
</table>

Dimensional Report View

In report, dimensional children display above aggregate account values, separated by subtotal lines. With “All Members” of both dimensions showing, the Income Statement appears as follows:

<table>
<thead>
<tr>
<th>Sales Dimension</th>
<th>1999</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales/Illinois/Stereos</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Illinois/Radios</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Illinois/Televisions</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Michigan</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Michigan/Stereos</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Michigan/Radios</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Michigan/Televisions</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales Dimension</td>
<td>1999</td>
</tr>
<tr>
<td>-----------------</td>
<td>------</td>
</tr>
<tr>
<td>Sales/North</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Florida/Stereos</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Florida/Radios</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Florida/Televisions</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Florida</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Georgia/Stereos</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Georgia/Radios</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Georgia/Televisions</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Georgia</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/South</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales</td>
<td>0.00</td>
</tr>
</tbody>
</table>

- “Display Order” on page 178
- “No Detail Display” on page 180
- “Non-Selected Member Display” on page 180
- “Selected Member Display” on page 180

**Display Order**

As on the Accounts spreadsheet, reports enable you to reorder the dimensional structure—for example, switch Product with Region and the report appears as follows:

<table>
<thead>
<tr>
<th>Sales/Stereos/Illinois</th>
<th>0.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales/Stereos/Michigan</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales/Stereos/North</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Stereos/Florida</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Stereos/Georgia</td>
<td>0.00</td>
</tr>
<tr>
<td>Product Group</td>
<td>Sales</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Sales/Stereos/Illinois</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Stereos/South</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Stereos</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Radios/Illinois</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Radios/Michigan</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Radios/North</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Radios/Florida</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Radios/Georgia</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Radios/South</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Radios</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Televisions/Illinois</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Televisions/Michigan</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Televisions/North</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Televisions/Florida</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Televisions/Georgia</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Televisions/South</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales/Televisions</td>
<td>0.00</td>
</tr>
<tr>
<td>Sales</td>
<td>0.00</td>
</tr>
</tbody>
</table>
No Detail Display

You can show no detail on reports—for example, choose “Product” and “Region” and the report displays as follows:

<table>
<thead>
<tr>
<th>Sale</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Non-Selected Member Display

Unlike on the Accounts spreadsheet, non-selected dimensional members must be aggregated into the account “Other” to reconcile the report properly—for example, selecting “Illinois” in the Region dimension, the report displays as follows:

<table>
<thead>
<tr>
<th>Sales/Stereos/Illinois</th>
<th>12.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales/Radios/Illinois</td>
<td>6.00</td>
</tr>
<tr>
<td>Sales/Televisions/Illinois</td>
<td>18.00</td>
</tr>
<tr>
<td>Sales/Other</td>
<td>26.00</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales</td>
<td>62.00</td>
</tr>
</tbody>
</table>

Selected Member Display

If you select <Selected Members>, the Dimension dialog enables you to display multiple members—for example, if you select Illinois and Michigan, the report displays as follows:

<table>
<thead>
<tr>
<th>Sales/Stereos/Illinois</th>
<th>12.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales/Stereos/Michigan</td>
<td>4.00</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales/Stereos/North</td>
<td>16.00</td>
</tr>
<tr>
<td>Sales/Radios/Illinois</td>
<td>6.00</td>
</tr>
<tr>
<td>Sales/Radios/Michigan</td>
<td>2.00</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales/Radios/North</td>
<td>8.00</td>
</tr>
<tr>
<td>Sales/Televisions/Illinois</td>
<td>18.00</td>
</tr>
<tr>
<td>Sales/Televisions/Michigan</td>
<td>7.00</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>------</td>
</tr>
<tr>
<td><strong>Sales/Stereos/Illinois</strong></td>
<td><strong>12.00</strong></td>
</tr>
<tr>
<td></td>
<td>------</td>
</tr>
<tr>
<td><strong>Sales/Televisions/North</strong></td>
<td><strong>25.00</strong></td>
</tr>
<tr>
<td><strong>Sales/Other</strong></td>
<td><strong>13.00</strong></td>
</tr>
<tr>
<td></td>
<td>------</td>
</tr>
<tr>
<td><strong>Sales</strong></td>
<td><strong>62.00</strong></td>
</tr>
</tbody>
</table>

All selected members appear in the “Sales/Other” account to reconcile to Sales.
About Debt Scheduler and Value Calculators

Strategic Finance provides tools designed with built-in corporate finance theory for calculating valuation assumptions.

- **Debt Scheduler**—Calculates debt amortization information.
- **WACC Calculator**—Calculates the cost of capital for use in valuation accounts.
- **Relevered WACC Calculator**—Enables unlevering and relevering of the cost of capital to examine the impact of various capital structure assumptions.
- **ScratchPad Valuation Calculator**—A scaled-down version of the Shareholder Value Method for calculating quick estimates of shareholder value.
- **Depreciation Scheduler**—Creates time periods for calculating depreciation of assets.
- **Trace Calculations**—Used for troubleshooting calculations.

Using Debt Scheduler

Debt Scheduler helps you capture and manage cash flow involved in debt investments, such as debt amortization, payments, interest, and interest rates:

- In setting the term (time) of the debt, you decide the number of years to repay. You can define debt as acquisition-related, to issue debt as acquisition flows instead of investing flows.
- In setting the principal, you define the money borrowed, premiums or discounts, and one-time costs incurred at the time of debt issuance.
In scheduling payments, you can have recurring monthly payments, payments on dates for amounts, and additional payments.

In setting interest rates, you can define rates with macroeconomic variables, calculate interests rate as percentages of spread accounts, calculate interest rate changes with grid pricing to model company performance in a given time period, or add paid-in-kind (PIK) interest to the principal.

In setting the debt recapture, you apply performance-based excess cash flow to the debt.

In setting inheritance, you can define parameters inherited by other scenarios from Base scenarios.

If using Debt Scheduler to calculate amortization, transfer the resulting data directly into debt accounts:

- New Senior Notes (v2652)
- New Senior Subordinated Notes (v2654)
- Total Long Term Debt (v2660)

You must select one of these debt accounts or a related account to create a debt schedule. Debt schedules are scenario-specific. When you create debt schedules, ensure you are in the correct scenario. You cannot create debt schedules in Actual scenarios.

**Debt Schedule Guidelines**

With debt schedules, use these guidelines:

- Time structures of financial models must be in calendar time before creating debt schedules. Non-calendar time structures, such as years in which each month has exactly 30 days, cannot handle debt schedules.

- Calculate all inputs for time periods before you running debt schedules to produce outputs. For example, PIK Interest Rate is an input to the calculation and cannot be forecast using Cash Interest Rate after Repricing, which is an output of the calculation—a circular reference may result.

- Do not create debt schedules in accounts containing debt. In particular, avoid:
  - The target account contains aggregate periods accepting input, and the debt schedule starts in a time period inside the boundary of the aggregate period.
  - The account contains debt before creating the debt schedule.
  - Currency Translator affects the account.
  - The vxxxx.04 and/or vxxxx.35 accounts contain input values in the time period immediately preceding the start of the debt schedule.
Manually Modelling Debt Recapture Without Debt Scheduler

To model debt recapture without using Debt Scheduler, you define the recapture in debt accounts (v2652, v2654, or v2660).

Caution! Do not manually model recapture in debt accounts when some periods are covered by Debt Scheduler and others are covered manually, because the methods used to calculate recapture in these two cases are incompatible. With 999 subaccounts of debt available, this is no limitation.

To manually model debt recapture:

- So that the debt recapture affects the debt balance, set the forecast method for the balance account (0.00) of the debt schedule to Forecast as... using the Change In method, instead of directly forecasting the debt balance. Then, set the forecast method to As Actual Value and use a Constant Input value of 0.

- So that the debt balance cannot go negative due to recapture, cap the forecasted maximum recapture account (0.17) against the trial debt balance before recapture. For example, you can use a Freeform Formula for the 0.17 account such as:

\[
\min(\max( X, 0 ), \text{sub}(v2660.00) + \text{sub}(v2660.03) + \text{sub}(v2660.04) + \text{sub}(v2660.13) - \text{sub}(v2660.15) + \text{sub}(v2660.09))
\]

where \(X\) represents the formula used to calculate the maximum recapture amount available. The recapture must be at least 0, but no larger than the anticipated debt balance.

Caution! If you use Freeform Formulas when debt balances are forecast directly (not as the related funds flow account), circular references occur—no debt is recaptured and the calculation fails.

Defining Debt Schedules

You can access Debt Scheduler from the Accounts spreadsheet, Freestyle reports, or non-debt accounts. When you access Debt Scheduler from accounts that are not long-term debt, you must select a long-term debt account. Create debt schedules for these long-term debt accounts:

- New Senior Notes (v2652)
- New Senior Subordinated Notes (v2654)
- Total Long Term Debt (v2660)

Before creating a debt schedule in one of these account, access the Funding Options dialog, select Common, and then select Term Debt in the Type column for the account.

See “Account Types” on page 129 and
See “Setting Common Attributes for Funding Accounts” on page 132
To define debt schedules:

1. Select **Analysis**, then **Debt Schedule**, and then **New/Edit**.

2. Optional: On **Debt Scheduler**, select a scenario from **Scenario**.
   - For creating debt schedules, this scenario contains the debt schedule.
   - For editing debt schedules, select the name of the scenario containing the debt schedule.

3. Optional: To create debt schedules, in **Create new Debt Schedules**, select an account and click **OK**.

4. Optional: To edit debt schedules, in **Edit existing Debt Schedules**, select an account and click **OK**.

5. Set parameters:
   - Term—see “Setting the Term of Debt Schedules” on page 186.
   - Principal—see “Setting the Principal of Debt Schedules” on page 187.
   - Payments—see “Setting the Payments of Debt Schedules” on page 188.
   - Interest—see “Setting the Interest of Debt Schedules” on page 190.
   - Recapture—see “Setting the Recapture of Debt Schedules” on page 192.
   - Inheritance Rules—see “Setting the Inheritance of Debt Schedules” on page 192.

6. Click **OK**.

---

**Setting the Term of Debt Schedules**

The term is the time duration over which debts are paid. Use **Debt Scheduler—Term** to set the start and end dates of the debt schedule.

To set the debt schedule term:

1. **Access Debt Scheduler**.
   
   See “Defining Debt Schedules” on page 185.

2. **Select Term**.

3. In **StartDate**, enter a date to begin debt payments.
   
   Default: current date
   
   Click the down arrow to display a calendar—select a date. The debt is issued at the end of that day. If a report is issued on the start day, the balance sheet shows debt, but calculates no interest.

   **Note:** The financial model must be in calendar time. For information, see “Debt Schedule Guidelines” on page 184.

4. In **EndDate**, select a date by which the debt should be paid in full.
   
   Default: current date
   
   Default exception: If you enter data in **Term (Years)**, the default end date is calculated based on the number of years.
Click the down arrow to display a calendar—select a date. Outstanding debt balance is paid at the end of that day.

5 **Optional:** In **Term (Years)**, enter the total number of years over which to pay the debt.

Integers only—no decimal.

- If you manually enter a number of years, the end is calculated from the start date.
- If you set **Start Date** and **End Date**, Strategic Finance calculates **Term (Years)**.
- If **Start Date** and **End Date** the same day, the term value is zero.

6 **Optional:** In **Days**, enter the total number of days beyond the last year over which to pay the debt.

Integers only—no decimal.

- If a loan does not span an exact number of years, include extra days here.
- If you enter a value manually, **End Date** is automatically calculated. Changes to **End Date** cause **Days** to be recalculated.

7 **Optional:** Select **Debt Issued in Deal Period** to set **End Date** to the deal period of the financial model.

Available only with Deal Periods. The .02 accounts for debt aggregate to a separate account in the Financing section of the FAS95 cash flow statement.

Automatically selects **Acquisition Related Debt**.

8 **Optional:** Select **Acquisition Related Debt** to set cash flows related to the issuance as acquisition flows instead of investing flows.

You can have acquisition-related debt that does not start in a deal period.

### Setting the Principal of Debt Schedules

Use **Principal** to enter the loan amount, which is the principal.

➢ To set debt schedule principal:

1 **Access Debt Scheduler.**

   See “Defining Debt Schedules” on page 185.

2 **Select Principal.**

3 **In Principal, enter a value.**

   This is the loan amount—it must be greater than zero. Values must be in the scale of the account. For example, if an account is in millions, the value 100 equals 100,000,000.

4 **In Premium/Discount, enter a value.**

   If the loan is issued at a premium or discount, enter the percentage. Calculated as a percent of the principal.

   - Enter a premium as a positive number.
   - Enter a discount as a negative number.

5 **In Issue Costs, enter a value.**
If there issuing costs, enter the value. This value represents a percentage of the principal.

6 **Optional:** Select **Expense issue costs as incurred** to expense the issue costs.

Issue costs are usually capitalized and amortized over the life of the debt. Select this option so issue costs are calculated and shown on the income statement when the debt is issued.

7 **Optional:** Select **Calculate current portion of long-term debt** to calculate the current portion of long-term debt by determining the payments scheduled to be made over the next 12 months.

### Setting the Payments of Debt Schedules

Payments are reductions of principal. Use Payments to schedule payments to the principal. You can schedule payments at intervals or set dates and amounts. You can set payments as currency values or as percentages of the principal.

➢ To set debt schedule payments:

1. **Access Debt Scheduler.**
   See “Defining Debt Schedules” on page 185.

2. **Select Payments.**

3. **In Frequency,** select an option to define the frequency of payments:
   - **Balloon**
     The amount is paid on the last day of the debt schedule.
   - **Annual, Semi-Annual, Quarterly, Monthly**
     These options define periodic payments.
   - **Schedule**
     Use the Scheduled Payments grid to define payment dates and amounts.

4. **In Payments are in,** select an option to define payments:
   - **Currency**
     Payments are calculated and displayed as currency values.
   - **Percent**
     Payments are calculated and displayed as a percentage of the principal.

5. **In Total Payments and Amount Remaining,** verify the number of payments.

   Displays the number of payments and the amount of the principal paid, and the amount remaining unpaid.

   **Note:** You need not schedule all payments in a debt schedule, as the remaining balance is paid on the last day of the loan.

6. **Under Recurring Payments,** define the amount and day of each debt payment.
   - **In Amount,** enter a value for the amount of the recurring payment.
This is the amount of money paid on the specified dates or time intervals. The value here is determined by the Payments are in option.

- **Currency**
  
  If Currency is selected in Payments are in, the text below Amount displays the scale of the currency, and values are in currency.

- **Percent**
  
  If Percent is selected in Payments are in, the text below Amount reads ‘Percent’, and values are as a percentage.

- **In Day of the Month for Payments**, select a day to make payment. Debt Scheduler needs the actual payment day to calculate interest:
  
  - **Issue Day**
    
    The payment day is same as the day of issuance. For example, quarterly payments made on a debt issued on June 8 are paid on September 8, December 8, March 8, and June 8.

  - **Last Day of the Month**
    
    All debt payments occur on the last day of the month.

  - **Specified Day of the Month**
    
    If a contract specifies a date within each month on which payments should occur, but the date on which the loan is issued does not fall on the specified day, select this option.
    
    For example, if a loan is issued on April 7 but payments should occur on the 15th of each month, use this option to specify the 15th.
    
    With Specified Day of the Month, enter the payment day of the month in Payment Day.

7 Optional: In the Scheduled Payments grid, create payment dates and amounts.

**Note:** If you select Schedule in Frequency, you must define the date and amount of those payments in the Scheduled Payments grid.

To use the Scheduled Payments grid:

- Click the Create.

- In the **Date** column, enter a date.
  
  You enter values directly from the keyboard, click the scroll arrows, or click the down arrow to use the calendar tool.

- In the **Amount** column, enter a payment amount.

- To delete a payment, select a row and click delete.

- To reorder a payment, select the row and click the up or down arrow.
Setting the Interest of Debt Schedules

You manage interest on the debt on Interest.

➢ To set debt schedule interest:

1 Access Debt Scheduler.
   See “Defining Debt Schedules” on page 185.

2 Select Interest.

3 In Day of the Month for Interest Payments, select a day of the month to make interest payments:
   - Issue Day
     The interest payment day is the same as the debt was issued. For example, quarterly interest payments on a debt issued on June 8 are paid on September 8, December 8, March 8, and June 8.
   - Last Day of the Month
     All interest payments occur on the last day of the month.
   - Specified Day of the Month
     If a contract specifies a date within each month for interest payments, but the issue date of the loan is not that same day, select this option. For example, if a loan is issued on April 7, but interest payments should occur on the 15th of each month, use this option to specify the 15th.

     With Specified Day of the Month, enter the day of each month for interest payments in Payment Day.

4 Under Cash Interest, define how cash interest is handled:
   - In Frequency of Interest Payment, select the frequency of interest payments.

     Debt Scheduler calculates interest expense on a daily basis, but you define when interest payments occur. Each option has a different effect on overall cash flow:

     o Annual, Monthly, Quarterly, Semi-Annual
       Calculate interest at the selected interval.

     o Daily
       If interest payments occur on any day except the last of the month, interest accrues at the end of every reporting period. With Daily, interest is paid as it is incurred, so the cash flow of the interest matches the expense, and no interest accrues.

     o Balloon
       Use Balloon to calculate zero interest payments through the life of the debt, but pay all interest in one lump sum at the end of the schedule.

     o Never
       Calculates no interest.
Select **Interest Rate Input Is** to define variable or constant interest rates for each period. Applies only to simple interest—does not include compounding.

- **Variable in each period**
  Enter interest rates on Accounts.

- **Constant for all periods**
  Use the same rate throughout the loan term.
  With **Constant for all periods**, enter a value in **Interest Rate** to define the constant interest rate.

Optional: Select **Spread over another account** for loans affected by macroeconomic variable.

Default = off

Some loans interest rates depend on macroeconomic variables. With **Spread over another account**, Debt Scheduler calculate interest by combining the rate in **Interest Rate Input Is** combined with output values from an account you select in **Spread Account** as the macroeconomic variable.

Optional: Select **Use Grid Pricing** to define rules changing interest rates according to criteria over time.

Default = off

Use grid pricing to define rules changing the interest rate according to company performance in time periods.

Enter a date when the grid pricing rule takes effect in **Date to start repricing**, and click **Edit Grid Pricing** to create rules.

see “Using Grid Pricing” on page 108.

Optional: Under **PIK Interest**, define paid-in-kind (PIK) interest:

- In **Added to Principal**, define how often interest is added back into principal:
  - **Never**
    Calculate no interest.
  - **Daily**
    Calculates interest daily.
  - **Monthly**
    Calculates interest monthly.
  - **Quarterly**
    Calculates interest quarterly.
  - **Semi-Annually**
    Calculates interest semi-annually.
  - **Annually**
Calculates interest annually.

- **PIK Interest Rate** displays the rate of paid-in-kind interest. The PIK interest rate account (v16xx.65) must be forecast as constant in all periods. Varying PIK interest rates cannot be forecast here.

Paid-in-kind interest is non-cash interest, so it is added back to the principal. You define how often to add interest back into the principal. As interest is calculated on a daily basis, subsequent interest calculations are increased depending on how often interest is added back into the principal.

---

**Setting the Recapture of Debt Schedules**

Recapture uses excess cash flow based on performance and to make additional payments on principal.

To set debt schedule recapture:

1. **Access Debt Scheduler.**
   
   See “Defining Debt Schedules” on page 185.

2. **Select Recapture.**

3. **Under Recapture as, select an option:**
   - **None**
   - **Independent Item**
     
     Recapture is stored as a line item.

4. **In Date of First Annual Recapture Payment, select a date.**

---

**Setting the Inheritance of Debt Schedules**

Using **Inheritance**, define which base scenario debt schedule attributes are inherited by all scenarios.

- When selected, each attribute is disabled on the corresponding tab, showing the base scenario’s schedule value.
- When not selected, the attribute is available.

To set debt schedule inheritance:

1. **Access Debt Schedule.**
   
   See “Defining Debt Schedules” on page 185.

2. **Select Inheritance.**

3. **Optional: Under Term, select Term.**

4. **Optional: Under Principal, select inherited parameters:**
   - **Principal**
● Premium/Discount
● Issue Costs
● Expense Issue Costs
● Calc Current Portion of LTD

5 Optional: Under Payments, select inherited parameters:
● Payment Frequency
● Payment Type
● Payment Amount
● Payment Date
● Payment Schedule

6 Optional: Under Cash Interest, select inherited parameters:
● Interest Frequency
● Single Interest Rate
● Interest Spread
● Repricing

7 Optional: Under PIK Interest, select inherited parameters:
● PIK Frequency
● PIK Interest Rate

Debt Schedule Related Accounts

You create debt schedules under three main accounts:
● New Senior Notes (v2652.00)
● New Senior Subordinated Notes (v2654.00)
● Total Long Term Debt (v2660.00)

After you create a debt schedule in one of these accounts, it includes these debt-schedule-related accounts:
● (.02)
● (.03)
● (.06)

Defines the minimal amount of debt and constrains debt payments.
● (.11)

The issuance of non-acquisition debt. If you enter a value for the principal and the debt is not acquisition related, the value is added to debt in the main account.
● (.13)
Total issuances—the sum of all acquisition-related and non-acquisition-related debt issuances.

- (.14)
- (.15)

Payments that have actually been paid. This may deviate from scheduled payments in the form of recapture, funding options, or if they run below the minimum debt or not.

- (.17)

The maximum excess cash flow that can potentially be applied to recapture payments.

- (.18)

The actual amount of recaptured cash flow paid to the debt. It is constrained by the amount of debt that can actually be paid.

- (.19)

The total payments in a given period that you can control.

- (.50)

Accrued cash interest.

- (.51)

Cash interest expense. In any period, the account value should be the equivalent of principal times the rate, which can change in a period.

- (.52)

Cash interest paid.

- (.55)

Cash interest rate you have entered.

- (.56)

Interest rate after re-pricing.

- (.60)

Accrued PIK interest.

- (.61)

PIK interest expense.

- (.62)

PIK interest paid.

- (.65)

PIK interest rate.

- (.70)

Unamortized issue cost. Treated as a non-current asset.

- (.71)
Change in unamortized issue cost.

- (.75)
  Amortization of issue cost—a non-cash item. You control where it appears in the income statement.

- (.80)
  Unamortized premium or discount. When bonds are issued at more or less than face value, the issue must record a premium or discount.

- (.81)
  Change in unamortized discount or premium.

- (.85)
  Identifies how the premium or discount is amortized.

- (.97)
  Current portion of long-term debt. The current portion is the amount of debt that is scheduled to be paid within the next 12 months.

- (.98)
  Long-term portion of long-term debt. The long-term portion is the total minus the current portion. A reporting item only.

- (.99)
  Triggers calculating debt schedules.

Using the Cost of Capital Calculator

WACC (Cost of Capital) Calculator computes:

- Cost of Equity
- After-tax Cost of Debt
- Weighted average Cost of Capital

The cost of capital represents an investor’s required rate of return on an investment and should be a company’s minimum acceptable rate of return for anticipated investments. It should be a company’s objective to earn rates of return above its cost of capital to maximize its shareholder’s investment.

Note: For all numeric values, use integers with decimal places. For example, enter 5.57% as 5.57, not .0557.

➢ To use WACC Calculator:

1 Select Analysis, then Tools/Calculators, and then WACC.
2 In Risk Free Rate, enter a rate.
3 In Equity Beta, enter a value.
4 In Market Risk Premium, enter a value.
5 In Cost of Debt (%), enter the pre-tax percentage.
6 In Marginal Tax Rate (%), enter a percentage.
7 In Cost of Preferred, enter a value.
   Use zero if the company you are analyzing does not have preferred stock.
8 Select an Enter Leverage As A Function Of option:
   ● Select Equity to base leverage ratio on debt to equity.
   ● Select Total Capital to base leverage ratio on debt to total capital.
9 In Debt To... Ratio, enter a value to base leverage ratio on Equity or Total Capital.
10 In Preferred to... Ratio, enter a value to base the leverage ratio on Equity or Total Capital.
11 Results displays the values of:
   ● Cost of Equity
   ● After-tax Cost of Debt
   ● Weighted average Cost of Capital

Using the Relevered Cost of Capital Calculator

Relevered WACC (Cost of Capital) Calculator computes:
● Unlevered Ke—unlevered cost of equity
● Relevered Beta
● Cost of Debt (after taxes)
● Relevered Ke—relevered cost of equity
● Relevered Kc—relevered weighted average cost of capital

The beta used to calculate the Cost of Equity incorporates the financial risk of a capital structure —if the capital structure changes, WACC and the Cost of Debt may reflect the revised financial risk.

To recalculate WACC under a different mix of debt and equity, you unlever the capital to examine the cost if the company had no debt. You can relever it using the capital structure. You calculate this with Relevered WACC Calculator.

In addition to the current cost of capital inputs, you must enter a Cost Of Debt at New Target and a Debt to... Ratio to reflect the target capital structure. These inputs relever the cost of equity based on the Hamada formula.

Note: For all numeric values, use integers with decimal places. For example, enter 5.57% as 5.57, not .0557.
To use Relevered WACC Calculator:

1. Select Analysis, then Tools/Calculators, and then Relevered WACC.
2. In Risk Free Rate, enter a value.
3. In Market Risk Premium, enter a value.
4. In Cost of Equity, enter a value.
5. In Cost of Debt, enter a pre-tax value at the target capital structure.
6. In Marginal Tax Rate (%), enter a value.
7. In Cost of Preferred (%), enter a value.
   Enter zero if the company you are analyzing does not have preferred stock.
8. Select an Enter Leverage As A Function Of option:
   - Select Equity if the leverage ratio is based on debt to equity.
   - Select Total Capital if the leverage ratio is based on debt to total capital.
9. In Debt To... Ratio, enter the leverage ratio based on Equity or Total Capital.
10. In Target Debt To... Ratio, enter a value at the capital structure.
11. In Preferred to... Ratio, enter the leverage ratio based on Equity or Total Capital.
12. Results displays calculated values of:
   - Unlevered Ke—unlevered cost of equity
   - Relevered Beta
   - Cost of Debt (after taxes)
   - Relevered Ke—relevered cost of equity
   - Relevered Kc—relevered weighted average cost of capital

Using ScratchPad Valuation Calculator

ScratchPad Valuation Calculator, using key valuation drivers, calculates rough estimates of shareholder value. After you complete a ScratchPad valuation, which assumes constant value drivers in forecast periods, you create a more complex model by entering a full set of financial statement accounts and valuation assumptions to examine these drivers in greater detail and evaluate changes over time.

To use ScratchPad Valuation Calculator:

1. Select Analysis, then Tools/Calculators, and then ScratchPad Valuation.
2. In Number of Forecast Periods, enter the number of years representing the discrete cash flow forecast or “value growth duration”.
3. In Sales (Last Historical Period), enter gross revenues less sales adjustments (discounts taken, returns) for the last historical period.
4. In Sale Growth Rate (%), enter your estimate of the anticipated rate of sales growth.
5 **In Operating Profit margin (%), enter the Operating Profit Margin.**

Enter the Operating Profit Margin, which is a pre-tax, pre-interest measure:

Operating Profit less Amortization of Goodwill and Intangibles

6 **In Incremental Fixed Capital Invest. (%), enter your estimate.**

7 **In Incremental Working Capital Invest. (%) enter your estimate.**

8 **In Tax Rate on Operating Profit (%), enter the estimated amount of cash taxes paid on Operating Profit.**

The Tax Rate on Operating Profit is calculated as:

\[
\text{Tax Rate on Operating Profit} = \frac{\text{Tax on Operating Profit}}{\text{Taxable Operating Profit}} \times 100
\]

9 **In Residual Value Income Tax Rate (%), enter a value.**

This is the income tax rate applied during the years after the forecast period. In many cases, is reasonable to use a rate equal to the Marginal Tax Rate.

10 **In Cost of Capital (K) (%), enter the Cost of Capital or discount rate, which is the weighted average costs of debt and equity.**

You can calculate this figure using the Cost of Capital Calculator—see “Using the Cost of Capital Calculator” on page 195.

11 **In Marketable Securities and Investments, enter current market values of non-operating investments.**

Include stocks, bonds, and overfunded pension plans.

12 **In Mkt. Value of Debt and Other, enter a value.**

Add to this the values of long-term obligations like preferred stock, minority interest, and contingent liabilities.

13 **In Number of Common Shares, enter the number of shares outstanding for the company.**

For private companies or divisions, enter zero.

14 **Calculate Results** displays calculate values of:

- **Cum. PV of Cash Flows**

  The Cum. PV (Present Value) of Cash Flows represents the cumulative value of all future periods’ cash flow expressed in today’s dollars. It is calculated by multiplying the Discount Factor by the dollar value of the future cash flow.

- **+ (plus) PV of Residual Value**

  The Present Value of Residual Value is the portion of total corporate value attributable to the company’s operations beyond the final year of the forecast period, expressed in today’s currency.

- **+ (plus) Market Securities**

  The value entered under Input Parameters.

- **= (equals) Corporate Value**

  The total economic value of the company equals:
The present value of all forecasted cash flow from operations during the forecast period.

The present value of the “Residual Value”—the value of the company’s operations beyond the forecast period.

“Investments”—Marketable Securities and long-term Investments in Bonds and Stocks.

- (minus) Market Value of Debt
  The value entered in the Input Parameters section.

= (equals) Shareholder Value
  The Shareholder Value of the company is the Corporate Value less the Market Value of Debt.

Shareholder Value /Share
  Shareholder Value divided by the Number of Common Shares.

**Using Depreciation Schedules**

**Subtopics**

- Adding Depreciation Schedules
- Setting the Length of Depreciation Schedules

You create depreciation schedules to depreciate capital assets over time in formulas.

➢ To use depreciation schedules:

1. Select Analysis, then Tools/Calculators, and then Depreciation Scheduler.

2. Add a depreciation schedule—see “Adding Depreciation Schedules” on page 200.

3. Option: To change schedule lengths, in Schedule, select a schedule and click Length—see “Setting the Length of Depreciation Schedules” on page 200.

4. Optional: To distribute the depreciation percentage across the schedule years, click each year cell and enter a percentage.
   - First column—Year number
   - Percent column—Percentage of depreciation per year. Use digits for percentages, for example, enter 20 for 20%, as opposed to .2. For salvage value reasons, the rates need not equal 100.

5. Click OK.
Adding Depreciation Schedules

To create depreciation schedules:
1. On Edit Depreciation Schedule, click Add.
2. In Name, enter a name.
3. In Length in Years enter a number of years.
4. Click OK.

Setting the Length of Depreciation Schedules

To change the length of depreciation schedules:
1. On Edit Depreciation Schedule in Schedule, select a schedule, and click Length.
2. In New Length, enter a number of years.
3. Click OK.

Using Trace Calculations

Trace Calculations enables you to debug a calculation step-by-step through each cell—you can eliminate common modeling errors and optimize processing times.

Looping errors often occur in complex models, causing unnecessary calculations. Trace Calculations calculates and displays the model, using color codes to show the start and end points of problematic loops:
- Green = loop start
- Red = loop end

Double-click the start of the loop (green) to move to the next cell—double-click on each successive cell to get to the next. You hover the mouse pointer over cells to display the calculation in a tooltip.

To use Trace Calculations:
1. Open an entity or file.
2. Select Analysis, then Tools/Calculators, and then Trace Calculations.
3. Click Next Balance or Next Fund to locate loops.
   - Next Balance moves to the next start (green)
   - Next Fund moves to the next end (red).
4. From the loop start (green), double-click the cell to move to the next cell in the calculation.
5. Hover the mouse pointer over a cell display the calculation in a tooltip. If there are errors, correct them.
6  Repeat steps 4-5 and fix all problems.

7  Click OK.
In This Chapter

- About Object Linking and Embedding .......................................................... 203
- Using Object Linking to Link Data .............................................................. 206

About Object Linking and Embedding

Subtopics

- Linked Objects
- Embedded Objects
- Linking or Embedding Objects in Objects Reports
- Embedding New Objects
- Embedding or Linking Objects
- Viewing or Editing Objects
- Selecting Default Number Formats
- Deleting Objects

You can incorporate documents, spreadsheets, graphs, charts, and data from other applications but related to your financial model on the OLE (object linking and embedding) tab. You embed or link items with the model:

- Embedded objects are stored within the financial model.
- Linked objects are stored in source files, but referenced from the financial model.

Use object linking to link data from external spreadsheets to Strategic Finance. Linked data automatically updates whenever you change the source.

Note: You can only link and embed objects from applications that fully support OLE.

Linked Objects

The advantage of linked objects is that changes in the object (the source file) automatically display in your financial model. For example, you can link a chart in a spreadsheet. Linking is useful for large source files, to save disk space.
Embedded Objects

Embedded objects are contained in the financial model, so the data is available when the original source file is not. Embedded objects remain associated with source application—opening an embedded object in Strategic Finance also opens the source application, so you can edit them.

To create objects from within Strategic Finance, embed an empty object. Open the empty object to open the source application from within Strategic Finance and create objects.

Note: To view or edit embedded objects, install the source application.

Linking or Embedding Objects in Objects Reports

To link or embed objects:

1. Select OLE.
2. Select Edit, then Object, and then Insert Objects.
3. Perform an action:
   - To create embedded objects, see “Embedding New Objects” on page 204.
   - To embed or link objects, see “Embedding or Linking Objects” on page 205.
4. Optional: To represent objects using icons, select Display as Icon.
   Without this option, the graphic, document, or object displays.
   
   Note: With Display as Icon, the default icon for the application displays. To change icons, click Change Icon and select an icon on Change Icon.
5. Click OK.

Embedding New Objects

To embed new objects:

1. Access Insert Object.
   See “Linking or Embedding Objects in Objects Reports” on page 204.
2. Select Create New.
3. In Object Type, select an option.
4. Optional: Select Display as Icon to display object icons.
5. Click OK.

Strategic Finance opens an instance of the external application to create an object.
Embedding or Linking Objects

To embed objects:

1. Access Insert Object.
   See “Linking or Embedding Objects in Objects Reports” on page 204.
2. Select Create from File.
3. In File, enter a file and filepath.
   Click Browse to search.
4. Optional: To link the object, select Link.
5. Optional: Select Display as Icon to display objects as icons.
6. Click OK.

Viewing or Editing Objects

To view or edit object:

1. Select OLE.
2. Double-click an object.
3. Select Edit, then Objects, and then Insert Objects.
4. Optional: You can modify and save the object within the source application.

Selecting Default Number Formats

Default number formats determine how accounts display in reports. For example, the default for ratio accounts is three decimal places—change it to one, all ratios display with one decimal place. To change single accounts, use Number Format—see “Formatting Numbers” on page 383.

To select default number formats:

1. Select OLE.
2. Select Format, then Default Number Formats.
3. On Default Number Formats, in Default Format, select an option:
   - Currency with Symbol
     Displays numeric data as currency, preceded by a currency symbol. For international currency symbols, press Alt and enter the ASCII code for the character—for example, Alt-156 for £ or Alt-157 for ¥.
   - Currency without Symbol
     Displays numeric data as currency—no currency symbol.
- **Items, Days, Turns**
  
  Same as Currency without Symbol, but for user-defined accounts (Memo Accounts, Ratios, and Covenants) displaying in non-currency formats, such as items (quantity), days (A/R days) or turns (Inventory).

- **Percentages**
  
  Displays numeric data in percentages.

- **Ratios**
  
  Same as Items, Days, Turns.

- **Dates**
  
  Displays formats for different dates—for example, 10/30/02.

4  In Sample, you can preview the current default format.

5  Click Change.

6  On Format, in Category, select an option, and in Type, select a format.

7  Click OK.

8  Click Close.

### Deleting Objects

- To delete objects:

  1  On the OLE tab, select an object.

  2  Select Edit, then Delete Objects.

### Using Object Linking to Link Data

You link data from a source analysis into the Accounts spreadsheet tab—Strategic Finance updates the data whenever you change the source file. You can link blocks of accounts, individual accounts, or items. The source must support OLE functionality and the source account structure must match the Strategic Finance account structure.

Linked values attach to a Strategic Finance cells, with cells defined as accounts in time periods within scenarios. Strategic Finance treats each cell as a hotlink. If you break the link with one cell and the source, the other cells remain linked. You add rows by activating accounts in Account Groups, and columns by changing time period detail in Time Periods between hotlinked cells—each cell remains linked to the source application.

- “Hotlinking Data” on page 207
- “Breaking External Data Links” on page 207
Hotlinking Data

Hotlinking enables imports data from external sources.

To hotlink data:

1. In an external spreadsheet, select a cell or range of cells.
2. Copy the cells.
3. In Strategic Finance, select Accounts and select the initial cell where the data should link.

**Note:** Do not select ranges containing calculated values or deactivated accounts—the range should only contain cells accepting inputs.

4. Select Edit, then Paste Special.
5. On Paste Special, select Paste Link.
6. Click OK.

Hotlinked cells display with a blue background.

**Note:** Applications that put currency symbols such as US $ in the source cell are interpreted as n/a. To ensure the integrity of linked values, use the general or comma number format in the source spreadsheet.

Breaking External Data Links

To break links:

1. On Accounts, double-click a linked cell.
2. Click Yes when prompted ‘Break this link?’.
13

Consolidating Financial Models

In This Chapter

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About Consolidation

Subtopics

● Consolidation Structures
● Limitations
● Local Consolidations for Multiple Data Variations
● Converting Consolidation Structures to Local Copies
● Selecting Consolidation Parent Entities or Files
● Rolling Up Consolidations
● Entering Data in Consolidation Parent Entities or Files
● Tree View and Chart View
● Using Entity Scenarios in Consolidation Structures
● Running Consolidations

Combine multiple Strategic Finance (*.alc) models to form a single entity to better analyze your enterprise. Consolidator helps determine how changing business unit conditions affect parent company earnings and values. After reviewing the consolidated entity, you can make informed decisions about individual business units.
You can consolidate business unit information such as method, scenario, time period, subaccount detail, organizational levels, and export the consolidated parent, in addition to consolidation metadata, to your relational database for advanced querying, analysis, and reporting. See “About Exporting Consolidation Metadata for Extended Analytics” on page 246.

Business unit entities do not require matching structures—they can have different scenarios, time periods, forecast methods, subaccount structures, residual value methods, currency denominations, and treatments for debt/interest and taxes. You may include entities with incomplete financial structures, such as corporate files containing only general expenses and fixed assets. There are some restrictions on consolidating data.

Identify the information for analysis before deciding what to consolidate to determine business unit details and the manner of consolidation. For example, if you are considering divesting a portion of a business unit, you would want to consolidate 100% of the earnings and the balance sheet amounts up until the transaction date, consolidate the unsold portion of the unit after the transaction date—you would enter the child entity twice, with the appropriated time periods selected for consolidation.

For optimizing consolidations:

- Parent entities should never forecast variables accepting input based on funding options results.
- To optimize consolidation speed at the cost of storage, activate Store outputs for all accounts in Scenario Manager for each entity to avoid recalculating unchanged values.

**Consolidation Structures**

You can create consolidation structures locally or on the Strategic Finance Server. Consolidation structures represent organizational structures, where each department of a company has a child entity or business unit file, and the values from all are rolled-up, or totalled, into a consolidated parent entity.

The consolidated parent entity (consolidated parent, consolidation file) becomes the root of all child entities in the structure, and data from the child entities is rolled-up into the parent when the consolidation is run. This gives you the overall financial picture of an organization.

For example, say you have a manufacturing company with West Coast regional operations. You could have a parent file or entity called ‘West Coast’ for the root of the structure, and files or entities for departments such as ‘Accounting’ and ‘Manufacturing’ as children, so their numbers are rolled-up into ‘West Coast’ to give you the total numbers for the whole region.

**Limitations**

To ensure data integrity, server-based consolidation structures allow only one data representation per entity, no matter how many consolidation structures share each entity.

For example, a consolidation structure called ‘West’ contains child entities ‘Accounting’ and ‘Manufacturing’. ‘Purchasing’ is a child of ‘Accounting’, but you want to create a copy to see
what happens if ‘Purchasing’ rolls into ‘Manufacturing’. You can not do this on the server, because moving ‘Purchasing’ into a second consolidation structure breaks the first structure.

**Note:** Use consolidation labels to create variations of consolidation runs within the server

See “Consolidation Labels” on page 242.

### Local Consolidations for Multiple Data Variations

To create and evaluate different organizational structures, convert the base structure to a local copy to bypass the single data representation rule—see “Converting Server Consolidations to Local Copies” on page 217. This enables you to create variations in the organizational structure without compromising the data on the server.

For example, to create variations of an organizational structure without affecting the original consolidation structure on the server, open that consolidation structure from the server and use **Convert to Local Consolidation** to create different versions locally. You can manipulate these copies without changing the original.

### Converting Consolidation Structures to Local Copies

Variations are stored locally in individual folders:

#### Selecting Consolidation Parent Entities or Files

The first step in consolidation is selecting or creating a consolidated parent, which is the entity or file receiving the consolidated data. The consolidated file determines the time period and account structure, so all business units’ time periods should match, as should the fiscal year ends of the consolidation and child entities. If time periods are different, create a consolidated parent including all relevant time period detail and account information.

### Rolling Up Consolidations

The full consolidation method adds output values from business units to produce output values in the consolidated parent. Consolidator calculates each file before adding the values to the consolidated parent. Input values in the consolidated parent is calculated based on output values from the child entities and the forecast method selected in the consolidated parent. For example, if you consolidate two business units containing forecast data in Table 3 on page 211 for Sales, if each unit’s previous period sales was $100:

<table>
<thead>
<tr>
<th>Business Unit</th>
<th>Input</th>
<th>Output</th>
<th>Forecast Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Unit #1</td>
<td>10%</td>
<td>$110</td>
<td>Growth Rate</td>
</tr>
<tr>
<td>Business Unit #2</td>
<td>$125</td>
<td>$125</td>
<td>As Actual Value</td>
</tr>
</tbody>
</table>

Table 3  Sample roll-up
After consolidating, the Sales account in the consolidated parent reflect the growth rate necessary to achieve the sales total of the two business units combined. In this example, you need a growth rate of 17.5% to achieve the additive sales value of $235.

Most consolidated accounts are calculated like this. There may be occasions when the additive process does not apply. For example, User Defined Accounts are typically used for non-currency items such as inflation rates and price/quantity relationships—the additive consolidation process would yield meaningless results. Such accounts are candidates for blocking, so you can manually enter data in the consolidated parent—see “Excluding Entities from Consolidations” on page 225.

There may be accounts in the child entities that should not be included in the consolidated parent. To eliminate an account completely, you include it in an elimination group. See “Specifying Parent Entity Characteristics” on page 219.

### Entering Data in Consolidation Parent Entities or Files

When accounts are blocked, they are not included in the consolidation. You can manually enter data for those accounts in the consolidated parent for calculating output values of blocked accounts.

### Tree View and Chart View

The Tree View or Chart View display the same information, but with variation:

- **Parent Scenario for Consolidation**
  In the parent entity, this is the scenario that receives the consolidated data.

- **Scenario**
  You can switch parent structures, parent scenarios, and the scenario for consolidation in the current entity.
  - “Specifying Parent Scenarios for Consolidation and Specifying the Default Contributing Scenarios in Children” on page 224
  - “Overriding the Default Contributing Scenarios in Consolidation Child Entities” on page 224

- **Entity Name/Tree**
  The entity name.
• **Scenario**
  The scenario active scenario in the entity is for the current consolidation.

• **Method**—Tree View only
  The method for consolidating the entity—see **Method Used** in “Specifying Child Entity Characteristics” on page 222.

• **% Ownership**—Tree View only
  The percentage of its value each individual account contributes—see **Ownership % of Selected Entity** in “Specifying Child Entity Characteristics” on page 222. For example, at 50% only half of the listed account value contributes to the consolidation.

• **Status**
  Entities have these possible states:
  - **Consolidate**
    The consolidation needs to be run.
  - **Working**
    The consolidation is processing.
  - **Calc**
    The entity is calculated.
  - **Change**
    The entity has changed.
  - **Ready**
    The consolidation is complete.

• **Perform a task:**
  - To hide excluded entities—Select **Edit**, then **Hide Excluded Entities** to hide excluded entities.
  - Deselect **Edit**, then **Hide Excluded Entities**, and then perform a task:
    - **Tree View**—Excluded entities display “[Excluded]” by the entity name.
    - **Chart View**—Entities are color-coded:
      - Gray—included
      - Red—excluded, see “Excluding Entities from Consolidations” on page 225

**Using Entity Scenarios in Consolidation Structures**

For each consolidation structure, you select which scenario an entity contributes. For entities different scenarios in multiple consolidation structures, entity changes require you to rerun only those consolidation structures using the changed scenario.
Running Consolidations

After building consolidation structures and assigning entity characteristics, you can run consolidations—see “Creating Local Consolidations” on page 214, “Setting Up Server Consolidations” on page 215, and “Working with Consolidation Structures” on page 217.

To run local consolidations:

1. Open a consolidation structure.
2. Select Consolidation, then Run, or press F5.
   - Entities display the Working status as the consolidation processes.
   - A Consolidation Completed prompt and a Ready status displays.
3. When complete, double-click the consolidated parent node to view consolidated data.

Running Multiple-Scenario Consolidations

If a consolidation structure contains multiple target scenarios, you can run multiple consolidations simultaneously.

To run multiple-scenario consolidations:

1. Open a consolidation structure.
2. Select Consolidation, and then Run Multiple.
3. In Consolidation Scenarios, select the target scenarios to consolidate, and click OK.

Creating Local Consolidations

You can use Strategic Finance files as consolidated parents.

To create local consolidations:

1. Select File, then New Consolidation File.
   An empty *.cns file opens.
2. Select Edit, then Add Entity, and then Add Parent.
3. On Entity Assignment, click New.
5. Click Browse to select a parent file.
6. In Password, enter a password if the file is password-protected.
7. On New Alias, click OK.
8. On Entity Assignment, click OK.
9. Click New to add child or sibling nodes.
Opening Local Consolidation Structures

To open local consolidation structures:

1. Select File and then Open.
2. In Files of Type, select Consolidation Structures (*.cns).
3. Click Browse to search.
4. Select the *.cns file and click Open.

Setting Up Server Consolidations

Subtopics

- Managing Server Consolidation Structures
- Creating Server Consolidation Structures
- Moving Entities in Server Consolidations
- Opening Server Consolidation Structures
- Removing Entities from Server Consolidation Structures
- Converting Server Consolidations to Local Copies

Consolidations can be created and run on the Strategic Finance server.

Managing Server Consolidation Structures

To manage server consolidation structures:

1. Select Server, then Consolidation Structures.
2. Optional: To create consolidation structures, click New—see “Creating Server Consolidation Structures” on page 215.
3. Optional: To open a structure, select it from Consolidation Structures and click OK.
4. Optional: To delete a structure, select it from Consolidation Structures and click Delete.
5. Click OK.

Creating Server Consolidation Structures

To create server consolidation structures:

1. Access Consolidation Structures and click New.
   
   see “Managing Server Consolidation Structures” on page 215.
2. On Structure Name, enter and click OK.

   The name must be unique within the server.
Moving Entities in Server Consolidations

You can move entities around within consolidation structures.

➤ To move entities into database root consolidation structures:
1 Select Server, then Entity Structures.
2 Select a root consolidation structure.
3 Select an entity to be the parent of the new entity.
4 Select Edit, then Move Entity, and then To Child.
5 On Move Entity, select an entity.
6 Click OK.
7 The entity displays as a child of the parent file select in step 3.

➤ To move entities currently in consolidation structures:
1 Select Server, then Entity Structures.
2 Select a consolidation structure.
3 Select an entity.
4 Select Edit, then Move to Root.
5 Select an entity to be the new parent of the moved entity.
6 Select Edit, then Move Entity, and then To Child.
7 On Move Entity, select the entity from Step 3 and click OK.
8 The selected entity displays a child of the file selected in Step 5.

Opening Server Consolidation Structures

➤ To open server consolidation structures:
1 From any Strategic Finance view, select Server, then Consolidation Structures.
2 Select a consolidation structure and click Open.

Removing Entities from Server Consolidation Structures

➤ To remove entities from server consolidations:
1 Select an entity.
2 Perform an action:
   ● To remove entities from consolidation structures but retain the entity, select Edit, then Move to Root. This moves the entity to the database root—see “Moving Entities in Server Consolidations” on page 216.
To delete entities from the database and consolidation structure, save a local copy, select Edit, and then select Remove Entity.

Converting Server Consolidations to Local Copies

Local consolidation structures enable you to evaluate variations on organizational structures without compromising the original data stored on the server—see “Local Consolidations for Multiple Data Variations” on page 211.

You identify whether a consolidation structure is local or server-based by the title bar:

- Local copy names end with ‘.cns’
- Server-based versions end with ‘(Consolidation)’.

If you decide to implement one of the variations, you would manually make the same changes in the server version of the consolidation structure.

To convert server consolidation structures to local copies:

1. Open a server consolidation structure—see “Managing Server Consolidation Structures” on page 215.
2. Select File, then Convert to Local Consolidation.
3. In Directory, enter the local filepath for the copy files.
4. Optional: To create local copies of all entities in the consolidation structure, select Copy Data Files.
   Entities are stored as .alc files.
5. Click OK.

Working with Consolidation Structures

Subtopics

- Adding Entities to Consolidation Structures
- Selecting Contributing Scenarios
- Specifying Parent Entity Characteristics
- Specifying Child Entity Characteristics
- Specifying Parent Scenarios for Consolidation and Specifying the Default Contributing Scenarios in Children
- Overriding the Default Contributing Scenarios in Consolidation Child Entities
- Adding Scenarios to Intermediate Parents
- Excluding Entities from Consolidations
- Hiding Excluded Entities in a Consolidation
- Reordering Business Unit Entities
- Deleting Business Unit Entities

Most tasks for consolidation structures are the same for both local and server versions. After you open a consolidation structure, these tools are available:
• **Parent Scenario for Consolidation** displays the target scenario within the consolidated parent. Read-only.

• **Scenario** enables you to select an active scenario for an entity with the consolidation. You can create a consolidation scenario in the parent entity.
  - For `<New Parent Scenario>`,
    
    See “Specifying Parent Scenarios for Consolidation and Specifying the Default Contributing Scenarios in Children” on page 224.
  
  - For other scenarios.
    
    See “Overriding the Default Contributing Scenarios in Consolidation Child Entities” on page 224.

• **Tree View** displays the consolidation structure as an entity tree
  
  See “Tree View and Chart View” on page 212.

• **Chart View** displays the consolidation structure as chart—see “Tree View and Chart View” on page 212.

## Adding Entities to Consolidation Structures

➤ To add entities to consolidation structures:

1. Perform an action:
   - To add parent entities, select **Edit**, then **Add Entity**, then **Add Parent**, and then see “Specifying Parent Scenarios for Consolidation and Specifying the Default Contributing Scenarios in Children” on page 224 and “Specifying Parent Entity Characteristics” on page 219.
   - To add child, select a parent and select **Edit**, then **Add Entity**, and then **Add Child**.
   - To add siblings, click a child and select **Edit**, then **Add Entity**, and then **Add Sibling**.

2. In **Add Entity**, in **Entities**, select an entity.

3. Click **OK**.

4. Select the contributing scenario.
   
   See “Selecting Contributing Scenarios” on page 218.

## Selecting Contributing Scenarios

➤ To select contributing scenario:

1. On **Select Scenario for New Entity**, select the scenarios:
   - Under **Receiving Scenario**, select the target scenario.
   - Under **Contributing Scenario**, select the source scenario.
2 Optional: Select Contribute the scenario that matches the receiving scenario to use the Parent Scenario for Consolidation as the contributing scenario from the new entity.

3 Click OK.

**Specifying Parent Entity Characteristics**

Use Parent Attributes to define parent-level parameters: blocking account groups, elimination groups, or whether to use account inputs or outputs in calculating data in non-consolidated Time Periods.

To specify parent entity characteristics:

1 Open a consolidation structure.

2 Select the parent entity.

3 Select Consolidation, then Entity Characteristics, and then Parent Attributes.

4 Optional: Blocking Accounts—Under Blocking Groups, select account groups to block from consolidation.

You select items under Blocking Groups to block accounts, so those accounts are not summed up from the child entities into the consolidated parent. You can enter values manually into the consolidated parent for those accounts.

- Select Residual Value to manually enter consolidated residual values.
  
  - Selected—You can manually input Residual Value in the consolidated parent, and Consolidator blocks the Residual Valuation Calculation accounts set in the consolidated parent.
  
  - Deselected—Consolidator calculates the consolidated Residual Value by adding the Residual Valuation Calculation accounts for all child entities. Only the Liquidation method is available for the Shareholder Value and Dividend Discount models and the Perpetuity method for the Economic Profit model. See “Calculating the Tax Effect of Operating Losses” on page 143 and “Valuations with Consolidation Structures” on page 236.

- Select Cost of Capital to manually enter consolidated cost of capital values.
  
  - Selected—You can manually input Cost of Capital in the consolidated parent, and Consolidator blocks the Cost of Capital accounts set in the consolidated parent
  
  Perform an action to enter data manually in the cost of capital accounts of the consolidated parent:
  
  - Cost of Capital (v5000) and Long-Term Cost of Capital (v5005)
  
  - Cost of Equity (v5300) and Long-Term Cost of Equity (v5305)
  
  - Economic Profit RROC (v5700) and Long-Term Required Return (v5705)
  
  - Deselected—Consolidator calculates the consolidated Cost of Capital from combinations of the cost of capital accounts in the child nodes—see “Valuations with Consolidation Structures” on page 236.
Select **Tax Rates** to manually enter tax rates in the consolidated parent.

- **Selected**—You can manually input Tax Rates in the consolidated parent, and Consolidator blocks the Tax and Valuation accounts set in the consolidated parent.
  
  Enter data manually in the tax rate accounts of the consolidated parent:
  
  - Trial Provision for Income Taxes (v1610)
  - Deferred Provision for Income Taxes (v1660)
  - Interest Tax Shield (v3220)
  - Tax Rate on Non-Operating Profit (v3230)
  - Temporary Differences (v3120)

- **Deselected**—Consolidator sums the tax rate accounts from the child nodes. See “Valuations with Consolidation Structures” on page 236.

Select **Interest Rates** to manually enter interest rates in the consolidated parent.

- **Selected**—You can manually input interest rates in the consolidated parent, and Consolidator blocks the interest rate accounts set in the consolidated parent.
  
  Enter data manually in the interest rate accounts of the consolidated parent:
  
  - Marketable Securities (v2010.05)
  - Interest on Excess Marketable Securities (v2015.05)
  - Interest on Current Portion of Long-Term Debt (v2510.05)
  - Interest on Notes Payable (v2520.05)
  - Non-cash Interest on Long-Term Debt: Scheduled (v2660.03)
  - Interest on Long-Term Debt
    - Scheduled (v2660.51)
    - Interest on Excess Debt (v2690.05)

- **Deselected**—Consolidator calculates consolidated interest rates by summing the interest rate accounts from all child nodes. See “Calculating the Tax Effect of Operating Losses” on page 143 and “Valuations with Consolidation Structures” on page 236.

Select **Common Dividends** to manually enter Common Dividends (v1880) in the consolidated parent.

- **Selected**—You can manually input Common Dividends (v1880) in the consolidated parent, and Consolidator blocks the common dividend accounts set in the consolidation node.

- **Deselected**—Consolidator calculates consolidated common dividends by summing Common Dividends (v1880) accounts from all child nodes. See “Calculating the Tax Effect of Operating Losses” on page 143 and “Valuations with Consolidation Structures” on page 236.

Under **User Defined Blocking Groups**, select account groups to block from consolidation.
5 Optional: Eliminating Accounts—Under Elimination Groups, select accounts to eliminate from consolidation.

Eliminated accounts are set to zero in the consolidation parent during processing. For example, an intercompany transaction modeled in a child entity may not be needed in the consolidation, so it can be eliminated.

Accounts must be in account group to be eliminated. Elimination can be based on account groups in the consolidation parent or business unit entities.

- Under Eliminate Based On, select the source for elimination groups:
  - Current Entity
    Eliminates accounts using account groups in the consolidation parent.
  - Business Unit
    Eliminates accounts using account groups in the child entities.

Note: Accounts that are both eliminated and blocked are eliminated.

- Under User Defined Elimination Groups, select account groups to eliminate from consolidation.

6 Optional: Under For time periods in which data will not be consolidated in the current entity, define how data is used in non-consolidated time periods.

Data in non-consolidated time periods must be handled differently. For example, if you are consolidating these accounts:

<table>
<thead>
<tr>
<th>Account</th>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004 Budgeted Sales</td>
<td>11%</td>
<td>1889</td>
</tr>
<tr>
<td>2005 Plan (growth rate)</td>
<td>9%</td>
<td>2058</td>
</tr>
</tbody>
</table>

Because sales are down, you revise 2004 Budgeted Sales, so you must recalculate 2005 Plan:

<table>
<thead>
<tr>
<th>Account</th>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004 Budgeted Sales</td>
<td>5%</td>
<td>1787</td>
</tr>
<tr>
<td>2005 Plan (growth rate)</td>
<td>?</td>
<td>?</td>
</tr>
</tbody>
</table>

For time periods in which data will not be consolidated in the current entity determines how these fields recalculate:

- Don’t Preserve Data—Blocks data from non-consolidated time periods, resulting in zero values. For example:
Table 4  Don’t Preserve Data

<table>
<thead>
<tr>
<th>Account</th>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004 Budgeted Sales</td>
<td>5%</td>
<td>1787</td>
</tr>
<tr>
<td>2005 Plan (growth rate)</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- **Preserve Inputs**—Data recalculates using Input cells, for example:

Table 5  Preserve Inputs

<table>
<thead>
<tr>
<th>Account</th>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004 Budgeted Sales</td>
<td>5%</td>
<td>1787</td>
</tr>
<tr>
<td>2005 Plan (growth rate)</td>
<td>9%</td>
<td>1947</td>
</tr>
</tbody>
</table>

**Note:**  **Preserve Input** does not work on these input accounts because Consolidator treats them as calculated accounts: v5000 Cost of Capital (Kw), v5005 Long-Term Cost of Capital (%), v5300 Cost of Equity (Ke), v5305 Long-Term Cost of Equity (%), v5700 Economic Profit PROC (%), and v5705 Long-Term Required Return (%). To preserve the values of these accounts in the consolidation, block these accounts.

- **Preserve Outputs**—Data recalculates using Output cells, for example:

Table 6  Preserve Outputs

<table>
<thead>
<tr>
<th>Account</th>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004 Budgeted Sales</td>
<td>5%</td>
<td>1787</td>
</tr>
<tr>
<td>2005 Plan (growth rate)</td>
<td>15.2%</td>
<td>2058</td>
</tr>
</tbody>
</table>

7  Click **Apply** or **Apply to All Scenarios**.

**Note:**  While on **Parent Attributes**, this saves parent attributes only.

**Specifying Child Entity Characteristics**

Child entity characteristics define how children behave during consolidation.

➢  To specify child entity characteristics:

1  Open a consolidation structure.

2  Select an entity. select **Entity Characteristics**.

   The entity name displays in the title bar: Consolidation Data for <Entity name>.

3  On **Consolidation Data for <Entity name>**, select **Child Attributes**.

4  Optional: Under **Method Used**, select a consolidation method to determine the consolidated accounts:
Note: Information about using methods—When you use the Cost, Equity, or Minority Interest Consolidation methods, the subaccount structures should be similar. See “Important Facts about the Equity, Cost, and Minority Interest Methods” on page 229.

- Full Consolidation—Consolidates 100% of all accounts.
- Equity—Less than 20% (see “Consolidator Equity Method” on page 230)
- Cost—At least 20% but less than 50% (see “Consolidator Cost Method” on page 229)
- Minority Interest Consolidation—At least 50% but less than 100% (see “Consolidator Minority Interest Method” on page 231)

Optional: Under Target Subaccount, select a subaccount.

Target Subaccount is available with Equity if account v2420 in the parent entity has subaccounts. This method has calculations for v2420. If v2420 has subaccounts, specify which subaccount receives the child entities values.

Optional: Under Equity Groups, select an account group.

With Equity, account groups you select here are consolidated into the parent.

5 Optional: In Ownership % of Selected Entity, enter a value.

Enter the percentage of the entity to be consolidated. Enter the number as an integer with two decimal places.

For example, if sales in the first forecast period of the child entity were $200 and 100% is consolidated, $200 are consolidated. If it is 80%, $160 are consolidated.

6 Under Periods to Consolidate into the Parent, select time periods for the consolidation.

- Period to Begin Consolidation
  Select the starting time period.

  The time period range must be within the range of the consolidated parent—see “Time Periods in Consolidated Parents and Child Entities” on page 231.

  - First Period in File—Consolidates starting in the first time period in the entity.
  - <Deal Period>—Consolidates starting in the deal period. Balance sheets from the main or .00 accounts consolidate into the respective accounts .2 or acquisition-related accounts in the consolidated parent.
  - Other available options display.

- Period to End Consolidation
  Select the last time period.

7 Click Apply or Apply to All Scenarios.

Note: On Child Attributes, this saves child attributes only.
Specifying Parent Scenarios for Consolidation and Specifying the Default Contributing Scenarios in Children

To specify or create consolidation parent receiving scenarios:

1. Open a consolidation structure.
2. Select the parent entity.
3. In Scenario, select <New Parent Scenario>.
4. Under Scenario to Add, select an option to determine the consolidation scenario:
   - To use a scenario, select Existing Parent Scenario to Consolidate, and select a scenario.
   - To create a scenario, select Add New Scenario to Parent and enter a name.
5. Under Scenario to Contribute from Children, select a default scenario for child entities to contribute:
   - To use the same scenario from the children as the consolidation scenario in the parent, select Use Parent Scenario. These rules apply:
     - Contributing scenarios are assigned to entities in a top-down manner.
     - For child entities that are intermediate parents:
       - If Existing Parent Scenario to Consolidate applies and the intermediate parent entity contains the corresponding scenario, that scenario consolidates.
       - If Existing Parent Scenario to Consolidate applies and the intermediate parent entity does not contain the corresponding scenario, the Base scenario consolidates.
       - If Add New Scenario to Parent applies and the intermediate parent entity does not contain the corresponding scenario, it creates that scenario within the entity for consolidation.
     - For child entities with no children:
       - If they contain the corresponding scenario, that scenario consolidates.
       - If they do not contain the corresponding scenario, it defaults to Base for consolidation.
   - Select Use Current Contributing Scenarios to retain the current contributing scenarios for each child while in a parent scenario.
6. Click OK.

Overriding the Default Contributing Scenarios in Consolidation Child Entities

To override default contributing scenarios in child entities:

1. Open a consolidation structure.
2. Select a child entity.
3  **In Scenario**, select a scenario.

   Optional: For entities that are intermediate parents, the `<new>` option is available—see “Adding Scenarios to Intermediate Parents” on page 225.

### Adding Scenarios to Intermediate Parents

For intermediate parent entities, or child entities with children, that do not contain contributing scenarios, you can create that scenario within the entity.

➢ To create contributing scenarios in intermediate parent entities:

1  **In Tree View or Chart View**, select an intermediate parent entity.

2  **In Scenario**, select `<new>`.  

3  **On Add Scenario**, under **Name of New Scenario**, enter the scenario name.

4  Click **OK**.

### Excluding Entities from Consolidations

You exclude entities to from consolidations. If excluded entities contain children, they are also excluded.

➢ To exclude entities from consolidations:

1  **On Tree View**, select an entity.

2  Select **Edit**, then **Exclude**, and then **From the Parent Scenario**.

### Hiding Excluded Entities in a Consolidation

To hide excluded entities in consolidations, select **Edit**, then **Hide Excluded Entities**.

### Reordering Business Unit Entities

You can cut and paste to reorder entities within consolidation structures.

➢ To reorder business unit entities:

1  Select an entity.

2  Select **Edit**, then **Cut**.

3  On the confirmation prompt, click **Yes**.

4  Select another entity.

5  Select **Edit**, then **Paste**.
Deleting Business Unit Entities

To delete business unit entities:

1. Select an entity.
2. Select Edit, then Remove Entity.
3. On the confirmation prompt, click Yes.

Currency Translation in Consolidations

Subtopics

- Runtime Currency Translation in Consolidations
- Specifying Currency Translation for Consolidation Structures
- Currency Translation with Multiple Scenarios

Runtime Currency Translation in Consolidations

If consolidation structures contain entities in different international currencies, you can translate them to a common currency during the consolidation run. The original entities retain their original currencies, but the server creates and stores copies with values translated to the common currency setting of the consolidation parent. These copies are used for rolling-up values during the consolidation run, and can be used in Freestyle Reports.

When defined for runtime currency translation, Consolidator automatically takes child entities in international currencies and creates translated copies in the currency of the consolidation parent. You must first configure the translation settings before running the consolidation, or entities in different currencies cause errors.

Specifying Currency Translation for Consolidation Structures

To specify currency translation for consolidation structures:

1. Open a consolidation containing multiple currencies.
2. In Chart View or Tree View, select the child entities containing different currencies.
3. Select Open Entity, then Check Out.
4. Select Analysis, then Currency Translator.
5. Select Accounts and enter exchange rates in the exchange rate accounts:
   - v100 Weighted Average Exchange Rate
   - v105 Period End Exchange Rate
   - v110 Equity Historical Exchange Rate
   - v115 User Defined Exchange Rate
6. Save and close the entity.
7. Repeat this task for all entities in different currencies from the consolidation parent before running the consolidation.

**Currency Translation with Multiple Scenarios**

Strategic Finance uses the input assumptions for the Base scenario of an entity as default input assumptions for all input accounts in the entity—except for scenario-specific accounts.

For example, an entity has two scenarios: Base and Upside. In this entity, the Cost of Goods Sold account (v1040) is used in the Upside scenario but stored in the Base scenario, while the Sales account (v1000) has a unique value stored in the Upside scenario. However, Cost of Goods is a formula calculated as a percent of Sales, and so although the calculation stored in Base is universal to both scenarios, the resulting value is unique in Upside because the Sales account is unique.

The entity, in American dollars, has these values:

<table>
<thead>
<tr>
<th>Table 7</th>
<th>Upside Scenario (U.S. dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Account</strong></td>
<td><strong>Formula</strong></td>
</tr>
<tr>
<td>Sales (v1000)</td>
<td>8% Growth</td>
</tr>
<tr>
<td>Cost of Goods Sold (v1040)</td>
<td>Inherited from Base</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 8</th>
<th>Base Scenario (U.S. dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Account</strong></td>
<td><strong>Formula</strong></td>
</tr>
<tr>
<td>Sales (v1000)</td>
<td>10% Growth</td>
</tr>
<tr>
<td>Cost of Goods Sold (v1040)</td>
<td>72% of Sales</td>
</tr>
</tbody>
</table>

The Cost of Goods Sold in the Upside scenario is calculated using the formula in the Base scenario with the Sales value in the Upside scenario. If you run this through the Currency Translator to convert to Canadian dollars at an exchange rate of 1.35:

<table>
<thead>
<tr>
<th>Table 9</th>
<th>Upside Scenario (translated to Canadian dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Account</strong></td>
<td><strong>Formula</strong></td>
</tr>
<tr>
<td>Sales (v1000)</td>
<td>8% Growth</td>
</tr>
<tr>
<td>Cost of Goods Sold (v1040)</td>
<td>Inherited from Base</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 10</th>
<th>Base Scenario (translated to Canadian dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Account</strong></td>
<td><strong>Formula</strong></td>
</tr>
<tr>
<td>Sales (v1000)</td>
<td>10% Growth</td>
</tr>
<tr>
<td>Cost of Goods Sold (v1040)</td>
<td>72% of Sales</td>
</tr>
</tbody>
</table>
In translating currencies, the issue is whether using the same assumption in Cost of Goods Sold gives the right numbers for both scenarios. To account for this, you have two options to choose from when translating currencies in a consolidation structure: translating all scenarios or an individual scenario.

**Translating All Scenarios**

Default—This is recommended, as it is ideal for processing entities with multiple scenarios. Input assumptions stored in the Base scenario are global to all scenarios in an entity. Only scenario-specific accounts are stored specific scenarios. When Currency Translator translates all scenarios:

1. The Currency Translator calculates an output for each scenario.
2. It solves the input for each scenario.
3. If an account exists only in the Base scenario, the Currency Translator compares the inputs of all other scenarios against the Base scenario. If the values are the same, it leaves the values in the Base scenario. If the values are different, it adds the account to the other scenario.

For example, you have a consolidation structure with a child entity in Yen and the parent in dollars. If you translate one scenario and a scenario-specific account in the Yen-based entity requires an account in the base scenario, Consolidator copies that account from the base scenario of the Yen-based entity and rolls it into the parent to calculate translated values in the consolidation run.

To specify all scenarios for currency translation:

1. Open a consolidation containing multiple currencies.
2. In Chart View or Tree View, select child entities containing different currencies, select Open Entity, and then Check Out.
3. Select Analysis, then Currency Translator, and then Translate All Scenarios.

Default: recommended. If not selected, the Consolidator uses the current scenario—see “Translating an Individual Scenario” on page 228.

4. Save and close the entity.
5. Repeat this task for all entities in different currencies from the consolidation parent before running the consolidation.

**Translating an Individual Scenario**

If you do not select Translate all Scenarios and run the consolidation with currency translation on one scenario, Currency Translator calculates translated values for that scenario. However, it preserves the input values of the other scenarios, leaving them untranslated and ensuring data integrity.
Data Management

Subtopics

- Important Facts about the Equity, Cost, and Minority Interest Methods
- Time Periods in Consolidated Parents and Child Entities
- Consolidation of Files with Dissimilar Currencies
- Freeform Formulas in Consolidation Structures
- Valuations with Consolidation Structures
- Residual Values in Consolidated Parent Entities or Files

Important Facts about the Equity, Cost, and Minority Interest Methods

Before running consolidations, review this information about Consolidation methods:

- If the consolidation parent has subaccounts for accounts used by the Cost, Equity, and Minority Interest methods, Consolidator uses the first subaccount to hold the consolidated results. Applies to these accounts:
  - Cost Method (v1190) — see “Consolidator Cost Method” on page 229
  - Equity Method (v2420) — see “Consolidator Equity Method” on page 230
  - Minority Interest Method (v1720), (v2780) — see “Consolidator Minority Interest Method” on page 231

- Consolidator enables blocking accounts used by Cost, Equity, and Minority Interest methods in parent files. A warning is written to the Consolidation log when one of these accounts is blocked:
  - Cost Method (v1190) — see “Consolidator Cost Method” on page 229
  - Equity Method (v2420.2), (v2420.3) — see “Consolidator Equity Method” on page 230
  - Minority Interest Method (v1720), (v2780) — see “Consolidator Minority Interest Method” on page 231

Consolidator Cost Method

Use Consolidator Cost Method when the amount of investment in a company is less than 20% and is held for at least one year. Only three calculations are performed and added to the consolidated parent:

- Dividends from Investments: Cost (v1190) account is increased by the ownership percentage times the investment’s cash dividends (v1900 Total Common Dividends);
  
  Parent’s v1190 = Ownership% x investment’s v1900

- In the valuation adjustment for Cost and Equity methods, SVA (v5.00.900) increases by the ownership percentage times the investment’s SVA value (v5070 Shareholder Value):
Parent’s v5.00.900 = Ownership% x investment’s v5070

- In valuation adjustment for Cost and Equity methods, EP (v5.00.910) increases by the ownership percentage times the investment’s EP value (v5790 Economic Profit Shareholder Value):

  Parent’s v5.00.910 = Ownership% x investment’s v5790

**Note:** The opening balance for the investment account (v2430.00 Investments: Cost Method) is in the parent company’s file. The investment is carried at the lower of acquisition cost or market value.

### Consolidator Equity Method

Use Consolidator Equity Method when the amount of investment in a company is at least 20% and less than 50% and is held for at least one year. Business unit values roll-up into Dividends from Subsidiaries and Earnings from Investments accounts, which are used to calculate the parent’s Investments: Equity Method:

\[
\text{v2420.00 Investments: Equity Method (prior period)} + \text{v2420.01 Increase in Investments: Equity Method} - \text{v2420.02 Dividends from Subsidiaries} + \text{v2420.03 Earnings from Investments: Equity} = \text{v2420.00 Investments: Equity Method}
\]

Four calculations are added to the consolidated parent:

- The Dividends from Subsidiaries (v2420.02) account increases by the ownership percentage times the subsidiary’s cash dividends (v1900 Total Common Dividends), automatically reducing the balance in the investment account:

  Parent’s v2420.02 = Ownership% x subsidiary’s v1900

- The Earnings from Investments: Equity (v2420.03) account increases by the ownership percentage times the subsidiary’s after-tax net income (v1750 Net Income), automatically increasing the balance in the investment account:

  Parent’s v2420.03 = Ownership% x subsidiary’s v1750

- In the valuation adjustment for the Cost and Equity methods, SVA (v5.00.900) increases by the ownership percentage times the subsidiary’s SVA value (v5070 Shareholder Value):

  Parent’s v5.00.900 = Ownership% x investment’s v5070

- In the valuation adjustment for the Cost and Equity methods, EP (v5.00.910) increases by the ownership percentage times the subsidiary’s EP value (v5790 Economic Profit Shareholder Value):

  Parent’s v5.00.910 = Ownership% x investment’s v5790
Note: The opening balance for the subsidiary investment account (v2420.00 Investments: Equity Method) should be in the parent company's file. The initial investment in the subsidiary should be recorded at cost.

Consolidator Minority Interest Method

Use Consolidator Minority Interest Method when the amount of investment is between 50% and 100% of the company's stock. This method also rolls up output values. While 100% of the business unit is consolidated, these calculations recognize the outside interest in the business:

- Minority interest percentage calculates as the difference between 100% and the ownership percentage in the Consolidator:
  \[ \text{MI\%} = 100\% - \text{ownership\%} \]
- Minority Interest (v1720) on the Income Statement increases by the minority interest percentage times the subsidiary's after-tax net income (v1750 Net Income):
  \[ \text{Parent's v1720} = \text{MI\%} \times \text{sub's v1750} \]
- Minority Interest (v2780) on the Balance Sheet increases by the minority interest percentage times the subsidiary's Common Equity account (v2890):
  \[ \text{Parent's v2780} = (\text{MI\%} \times \text{sub's v2890}) \]
- In the valuation adjustment for Minority Interest, SVA (v5.00.920) increases by the minority interest percentage times the investment's SVA value (v5070 Shareholder Value):
  \[ \text{Parent's v5.00.920} = \text{Ownership\%} \times \text{investment's v5070} \]
- In the Valuation Adjustment for Minority Interest, EP (v5.00.930) increases by the minority interest percentage times the investment's EP value (v5790 Economic Profit Shareholder Value):
  \[ \text{Parent's v5.00.930} = \text{Ownership\%} \times \text{investment's v5790} \]

Time Periods in Consolidated Parents and Child Entities

The analysis length and time period detail level should be the same for all files in the consolidation. To ensure the integrity of the consolidation, the time period information in the consolidated parent is compared to the time period information in the child entities as they are consolidated.

Several time period conditions could affect the results of consolidations:

- Uneven time periods are time periods exist in child entities the consolidated parent, but not in both. Depending on the condition, data may or may not be included in the consolidation See “Uneven Time Periods” on page 232.
- Mismatched historical and forecast period boundaries occur when the files in the consolidation do not match the last historical period. See “Uneven Fiscal Year Ends” on page 232.
Uneven fiscal year ends exist when the year ends of the files in the consolidation do not match, and stops consolidating. See “Mismatched Historical and Forecast Period Boundaries” on page 232.

Different levels of time detail occur when one or more files in the consolidation have different time dimensions than the other files. Some differences are acceptable, while others stop consolidating. See “Differing Levels of Time Detail” on page 233.

Subperiods must be consistent between the child entities and the consolidation parent to be included in the consolidation. If they are not, consolidating could stop. See “Mismatched Subperiods” on page 233.

**Uneven Time Periods**

If the consolidated parent has more historical periods than the child entities, Consolidator assumes zero values in the consolidated parent, but not in child entities. You can block the non-consolidated time period data to maintain data in other time periods of the consolidated parent. See “Specifying Parent Entity Characteristics” on page 219.

If the consolidated parent has fewer historical periods than the child entities, only data for historical periods in the consolidated parent is included in the consolidation.

If the consolidated parent has more forecast periods than the child entities, Consolidator assumes zero values for those periods in the consolidated parent but not the child entity.

If the consolidated parent has fewer forecast periods than the child entities, Consolidator include the child entity forecast data in the residual value of the consolidated parent instead of the forecast —see “Valuations with Consolidation Structures” on page 236 and “Residual Values in Consolidated Parent Entities or Files” on page 237.

**Uneven Fiscal Year Ends**

The fiscal year end of each child entity must match that of the consolidated parent. If they do not match, Consolidator logs an error stops consolidating.

For example, if the consolidated parent uses a fiscal year end of July 31, all child entities must use a fiscal year end of July 31.

**Mismatched Historical and Forecast Period Boundaries**

The last historical period in the consolidated parent defines the last historical period for the consolidation. The historical and forecast boundaries of both the consolidated and child entities are compared based on the system labels assigned to files when created or imported. If the historical and forecast boundaries are different, a warning message displays, but the consolidation finishes.

For example, if the child entity uses months and the last historical period is 5/96, the consolidated parent uses quarters and the last historical period is 2Q96 (or 6/96). Data from the child entity from the first forecast period (6/96) shifts to the last historical period in the consolidated parent.
**Differing Levels of Time Detail**

If files in consolidation structures have different time detail levels, the consolidated parent cannot have a more detailed time structure than the least detailed child entity. This table illustrates how level-of-time-detail rules apply to child entities based on the level of time detail in the consolidated parent:

<table>
<thead>
<tr>
<th>Consolidated Parent Uses</th>
<th>Child Entities Can Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years</td>
<td>Years, Halves, Quarters, Months, or Weeks</td>
</tr>
<tr>
<td>Halves</td>
<td>Halves, Quarters and Halves, Months and Halves, or Weeks and Halves</td>
</tr>
<tr>
<td>Quarters</td>
<td>Quarters, Months and Quarters, or Weeks and Quarters</td>
</tr>
<tr>
<td>Months</td>
<td>Months or Weeks and Months</td>
</tr>
<tr>
<td>Weeks</td>
<td>Weeks</td>
</tr>
</tbody>
</table>

If mismatched time periods do not fall within these rules, the consolidated parent uses the aggregate data from the child entities. For example, if the consolidated parent is in years and the child entities are in quarters, the consolidation uses yearly values for each of the child entities.

If a time period mismatches is not covered by these rules, Consolidator logs an error and stops the consolidation.

**Mismatched Subperiods**

Strategic Finance consolidates subperiods if the consolidated parent and child entities have matching subperiods.

If child entities contain subperiods but the consolidated parent does not, the consolidation does not include subperiods. Subperiod data aggregates to the full period in the consolidated parent.

**Number of Days**

<table>
<thead>
<tr>
<th>Before Consolidation:</th>
<th>Subperiod #1</th>
<th>Subperiod #2</th>
<th>Total Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Unit File</td>
<td>30</td>
<td>335</td>
<td>365</td>
</tr>
<tr>
<td>Consolidated Parent</td>
<td>None</td>
<td>365</td>
<td>365</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>After Consolidation:</th>
<th>Subperiod #1</th>
<th>Subperiod #2</th>
<th>Total Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidated Parent</td>
<td>None</td>
<td>365</td>
<td>365</td>
</tr>
</tbody>
</table>

If the consolidated parent has subperiods and the child entities do not have matching subperiods, Consolidator logs an error and stops the consolidation.

The same condition exists for subperiods with uneven lengths of time. In this example, the consolidated parent contains subperiods which match the length of time of the subperiods in...
business unit #1. The subperiods in child entity #2 do not match, so Consolidator would log an error and stops the consolidation.

Number of Days

<table>
<thead>
<tr>
<th>Before Consolidation:</th>
<th>Subperiod #1</th>
<th>Subperiod #2</th>
<th>Total Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Unit File #1</td>
<td>30</td>
<td>335</td>
<td>365</td>
</tr>
<tr>
<td>Business Unit File #2</td>
<td>45</td>
<td>320</td>
<td>365</td>
</tr>
<tr>
<td>Consolidated Parent</td>
<td>30</td>
<td>335</td>
<td>365</td>
</tr>
</tbody>
</table>

Consolidation of Files with Dissimilar Currencies

Consolidator compares the Default Currency Name for each child entity to that in the consolidated parent. If they are different, Consolidator logs a warning, but continues the consolidating. The consolidated values may not be meaningful.

This rule holds unless Currency Translator is involved.

See “Currency Translation in Consolidations” on page 226.

Freeform Formulas in Consolidation Structures

Consolidator preserves the additivity of the child entity output data whenever possible. Consolidator solves for @input if the consolidated parent contains a Freeform formula using @input.

For example, child entities and the consolidated parent use the same Freeform formula, which contains the @input function, to calculate Depreciation Expense (v1110) on the Income Statement. Strategic Finance solves the consolidated parent input using the output values of the child entities. In this example, the input of .86 is necessary to achieve the additive output of $430 in the consolidated parent.

Business Unit File Freeform formula:

@input * v2190.1

Consolidated parent Freeform formula:

@input * v2190.

Input Data:

<table>
<thead>
<tr>
<th>Account Name</th>
<th>Business Unit File #1</th>
<th>Business Unit File #2</th>
<th>Consolidated Parent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depreciation Expense (Funds)</td>
<td>$200</td>
<td>$300</td>
<td>$500</td>
</tr>
<tr>
<td>Depreciation Expense (v1110.0)</td>
<td>.80</td>
<td>.90</td>
<td>.86</td>
</tr>
</tbody>
</table>
Output Data:

<table>
<thead>
<tr>
<th>Account Name</th>
<th>Business Unit File #1</th>
<th>Business Unit File #2</th>
<th>Consolidated Parent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depreciation Expense (v1110.0)</td>
<td>$160</td>
<td>$270</td>
<td>$430</td>
</tr>
</tbody>
</table>

If the consolidated parent contains a Freeform Formula that does use `@input`, the consolidation checks the consolidated parent to see if the account has currency overrides. If there are, the currency override is the sum of the output data of all child entities in the consolidation.

For example, both business units use the same Freeform Formula, which contains `@input`, to calculate Depreciation Expense (v1110) on the Income Statement. The consolidated parent does not use `@input`. It sets Depreciation Expense (v1110) equal to Depreciation Expense (Funds) (v2190.1). Consolidator solves this using the output values of the child entities. In this example, a currency override of #430 achieves the additive output of $430 in the consolidated parent.

**Business Unit File Freeform formula:**

@input * v2190.01

**Consolidated parent Freeform Formula:**

v2190.01

Input Data:

<table>
<thead>
<tr>
<th>Account Name</th>
<th>Business Unit File #1</th>
<th>Business Unit File #2</th>
<th>Consolidated Parent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depreciation Expense (Funds) (v2190.1)</td>
<td>$200</td>
<td>$300</td>
<td>$500</td>
</tr>
<tr>
<td>Depreciation Expense (v1110.0)</td>
<td>.80</td>
<td>.90</td>
<td>#430</td>
</tr>
</tbody>
</table>

Output Data:

<table>
<thead>
<tr>
<th>Account Name</th>
<th>Business Unit File #1</th>
<th>Business Unit File #2</th>
<th>Consolidated Parent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depreciation Expense (v1110.0)</td>
<td>$160</td>
<td>$270</td>
<td>$430</td>
</tr>
</tbody>
</table>

If there are no currency overrides, the Freeform Formula in the consolidated is executed. It is possible, with no currency overrides, that the consolidated parent output is not equal to the sum of the child entities.

Take the previous example, but with no currency override, and the Freeform Formula in the consolidated parent executes.

**Business Unit File Freeform formula:** @input * v2190.01

**Consolidated parent Freeform Formula:** v2190.01
Valuations with Consolidation Structures

Performing valuations in a consolidated parent and in a child entity are similar. While most of the data comes from the child entities, some accounts may be manually entered in the consolidated parent, depending on the consolidation structure.

Cash flows from child entities are additive in full consolidation methods, unless you have selected to block accounts—see “Rolling Up Consolidations” on page 211. Other child entity accounts are also cumulative:

- Market Value of Debt (v5.00.500)
- Market Value of Other Obligations (v5.00.540)
- Underfunded Pension Liabilities (v5.00.520)
- Investment in Stocks and Bonds (v5.00.560)
- Market Value of Other Liabilities (v5.00.700)
- Market Value of Other Assets (v5.00.720)
- Residual NOPAT Adjustment (v5.00.820)

If these accounts contain data at a consolidated level, but not in child entities, consider entering the data into one of the child entities. Or, enter the account data in child entities, to avoid changing files.

You can block the Cost of Capital account group and manually enter those accounts in the consolidated parent

See “Specifying Parent Entity Characteristics” on page 219.

Otherwise, the cost of capital is calculated as a weighted average of the child entities.

- “Residual Values in Consolidated Parent Entities or Files” on page 237
- “Consolidator Cost Method” on page 229
- “Consolidator Equity Method” on page 230
- “Consolidator Minority Interest Method” on page 231
Residual Values in Consolidated Parent Entities or Files

If you consolidate Residual Values, Consolidator calculates them using the Liquidation method for both the Shareholder Value and Dividend Discount models. The Perpetuity method applies to the Economic Profit model. The Future Value of Residual Value (FVRV) from the child entities are added to calculate the FVRV for the consolidated parent. The consolidated FVRV is discounted using a weighted average discount rate from the child entities. If the Cost of Capital account group is blocked, discount rates in the consolidated parent are used instead of the weighted average.

If you block Residual Values, Consolidator calculates them using the residual value method selected in the consolidated parent.

See “Specifying Parent Entity Characteristics” on page 219.

If you block the Residual Value account group is blocked, you must manually enter data in these accounts of the consolidated parent:

- “Shareholder Value Model” on page 237
- “Dividend Discount Model” on page 238
- “Economic Profit Model” on page 238

Shareholder Value Model

Perpetuity
Normalized Operating Profit Adjustment (v5110.00)
Residual Value Tax Rate (v4.00.560)

Growth in Perpetuity
Normalized Operating Profit Adjustment (v5110.00)
Residual Value Tax Rate (v4.00.560)
Perpetuity Growth Rate (v4.00.520)

Value Growth Duration
Normalized Operating Profit Adjustment (v5110.00)
Residual Value Tax Rate (v4.00.560)
Perpetuity Growth Rate (v4.00.520)
Perpetuity Value Growth Duration (v4.00.540)

Price/ Earnings Ratio
Normalized Earnings Adjustment (v5140.00)
Price/ Earnings Ratio (v5130.00)
Debt Discount/ (Premium) (v5150.00)
Market-to-Book Ratio
Market-to-Book Ratio (v5120.00)
Debt Discount/ (Premium) (v5150.00)

Liquidation
Liquidation Value (v5210)

**Dividend Discount Model**

**Perpetuity**
Long-Term Return on Book Equity (v4.00.780)
Residual Value Target Leverage Ratio (4.00.760)

**Growth in Perpetuity**
Long-Term Return on Book Equity (v4.00.780)
Perpetuity Growth Rate (4.00.720)
Residual Value Target Leverage Ratio (4.00.760)

**Value Growth Duration**
Perpetuity Value Growth Duration (v4.00.740)
Residual Value Target Leverage Ratio (4.00.760)
Perpetuity Growth Rate (4.00.720)

**Price/ Earnings Ratio**
Normalized Earnings Adjustment (v5440.00)
Price/ Earnings Ratio (v5430.00)

**Market-to-Book Ratio**
Market-to-Book Ratio (v5420.00)

**Liquidation**
Equity Liquidation Value (v5480.00)

**Economic Profit Model**

**Perpetuity**
Economic Profit Residual Tax Rate (v5.00.800)
Residual NOPAT Adjustment (v5.00.820)
Consolidated Funding Options

Subtopics
- Funding Options Table
- Order of Repayment and Funding
- Consolidation Process for Funding Options Accounts
- Accounts Associated with Funding Options Accounts

Consolidator uses Funding Options attributes in the consolidated parent when handling consolidated surpluses or deficits.

Funding Options Table

Child entities do not change the characteristics of the Funding Options table in the consolidated parent, for example:

Consolidated Parent

<table>
<thead>
<tr>
<th>Account</th>
<th>Type</th>
<th>Surplus</th>
<th>Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>v2520.0.000</td>
<td>Term</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>v2460.0.000</td>
<td>Asset</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

Child Entity

<table>
<thead>
<tr>
<th>Account</th>
<th>Type</th>
<th>Surplus</th>
<th>Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>v2520.0.000</td>
<td>Rev</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>v2460.0.000</td>
<td>Asset</td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

Order of Repayment and Funding

Consolidator uses the order of repayment in the consolidated file when consolidating Funding Options and disregards attributes in the child entity, for example:

Consolidated Parent

Apply Cash Surplus to...
Consolidation Process for Funding Options Accounts

For accounts that are Funding Option surpluses or deficits, the input values forecast the maximum account output. For accounts that are not in Funding Options, the input values forecast the actual output values. For example, to repay early a term loan of $100 and there is sufficient cash, enter $100 for that account. After calculating, the output is between 0 and $100, depending on the available cash. If the term loan should not be paid early, input $100 and the output is $100.

Funding Option accounts have main accounts and maximum accounts: for example, Marketable Securities has the main account v2010.00.000 and the maximum account v2010.07.000. Maximum account output calculates based on the main account value:

- If main accounts have surplus/deficit settings, maximum account outputs calculate using main account inputs.
- If main accounts do not have surplus/deficit settings, maximum account outputs calculate using main account outputs.

The basic roll-up process backsolves output values from business units to calculate the consolidated input. Funding Options accounts backsolve differently:

- If main accounts have surplus/deficit settings in the consolidated parent, Consolidator adds all business unit maximum account outputs, backsolves the main account input, and determines the main account output using the rest of the data.
- If main accounts do not have surplus/deficit settings, Consolidator adds all business unit main account outputs and backsolves the main account input. The rest of the data is irrelevant.

Consider:
In business unit A, Marketable Securities (v2010) has a surplus/deficit setting. There is not enough cash to use the maximum. In business unit B, Marketable Securities (v2010) does not have a surplus/deficit setting. Business unit B runs a large cash surplus. The table shows the consolidated results if Marketable Securities (v2010) has a surplus/deficit setting in the consolidated parent (SD) and if it does not (No SD).

<table>
<thead>
<tr>
<th>Task</th>
<th>Business Unit A</th>
<th>Business Unit B</th>
</tr>
</thead>
<tbody>
<tr>
<td>input (v2010.0)</td>
<td>100</td>
<td>200</td>
</tr>
<tr>
<td>output (v2010.0)</td>
<td>85</td>
<td>200</td>
</tr>
<tr>
<td>maximum (v2010.7)</td>
<td>100</td>
<td>200</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Task</th>
<th>Cons (SD)</th>
<th>Cons (No SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>input (v2010.0)</td>
<td>300</td>
<td>285</td>
</tr>
<tr>
<td>output (v2010.0)</td>
<td>300 (A)</td>
<td>285</td>
</tr>
<tr>
<td>maximum (v2010.7)</td>
<td>300</td>
<td>285 (B)</td>
</tr>
</tbody>
</table>

(A) This could be up to 300, depending on the consolidated cash position.

(B) This is determined by the input of v2010.00, so the maximum on these facts is not additive.

Debt accounts act like asset accounts: If the item is a term loan, the surplus/deficit setting matters.
- If the item is a revolver, its accounts roll-up like assets with surplus/deficit settings, regardless of whether the revolver has a surplus/deficit setting.
- If the term loan has a surplus/deficit setting, it rolls up like a revolver.
- If the term loan does not have a surplus/deficit setting, it rolls up like assets with no surplus/deficit settings.

**Accounts Associated with Funding Options Accounts**

Funding Options accounts have accounts recording interest income or expense. For example, Marketable Securities (v2010) and Interest on Marketable Securities (v2010.05) behave in consolidations according to their forecast method and their associated accounts. Consolidated interest income/expense for given Funding Options accounts is generally not the sum of the business units.

**Consolidated Interest Income Example**

If a business unit generates a cash surplus of $100 invested in Marketable Securities and those securities earn 7%, the business unit has an interest income of $7. Consolidate this business unit with one generates a large cash deficit. After consolidation, if Marketable Securities has a surplus/deficit setting in the consolidated parent, the consolidated business unit shows marketable securities of 0. As long as the forecast method for interest income is a percent of Marketable Securities, interest income is zero. The interest rate is 7% in the consolidated parent.
If Marketable Securities does not have a surplus/deficit setting, the consolidated parent has $100 of Marketable Securities and $7 of interest income.

If interest income is forecast as an actual value in the consolidated parent but marketable securities has a surplus/deficit setting, Marketable Securities is zero, but interest income is $7.

**Consolidated Interest Rate Example**

To get consolidated interest rates, Consolidator temporarily assumes that Marketable Securities does not have a surplus/deficit setting, and adds up all child entity output values for both marketable securities and interest income, and solves for the rate. This rate becomes the input for interest income. If marketable securities has a surplus/deficit setting, this rate applies to whatever output Marketable Securities uses for consolidated interest income.

<table>
<thead>
<tr>
<th>Item</th>
<th>File</th>
<th>Business unit 1</th>
<th>Business unit 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mkt. sec.</td>
<td></td>
<td>300</td>
<td>400</td>
</tr>
<tr>
<td>Interest rate</td>
<td>6.57%</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td>Interest inc.</td>
<td></td>
<td>18</td>
<td>28</td>
</tr>
</tbody>
</table>

Marketable Securities and Interest Income values depend on other data, but rates can be determined by adding 18 and 28 and dividing the sum by the sum of 300 and 400.

**Consolidation Labels**

**Subtopics**

- Consolidation Label Components
- Managing Labels
- Creating Labels
- Renaming Labels
- Viewing Consolidation Label Information

Consolidation labels create snapshots of your enterprise at a moment in time. When you run consolidation structures, you can label audit points. The consolidation run is stored as an audit point under that label.

To compare snapshots of your enterprise, you create different labels to denote consolidation variations. Up to 5 variations of the most recently run consolidations are stored for labelling. After all 5 variations are stored, the next consolidation run overwrites the earliest variation.

**Tip:** After you label a consolidation structure, the contents cannot change. You cannot rerun the consolidation under any label. To change or rerun a labelled consolidation, use the Administrator to create a database based on that label. When you create labels, you can create databases for modifying the consolidation. Talk to your Strategic Finance administrator.
Consolidation Label Components

Consolidation labels consist of:

- A name
- The consolidation (*.cns) file
- The transaction ID of the consolidation run
- The version number of each entity
- The scenario

Managing Labels

To maintain consolidation labels:

1. Open a consolidation structure—see “Opening Server Consolidation Structures” on page 216.
2. Select Consolidations, then Labels.
3. Optional: To create labels, click Create—see “Creating Labels” on page 243.
4. Optional: To delete labels, in Labels, select one and click Delete.
5. Optional: To rename labels, in Labels, select one and click Rename—see “Renaming Labels” on page 244.
6. Optional: To view labels, in Labels, select one and click View—see “Viewing Consolidation Label Information” on page 244.
7. Click OK.

Creating Labels

Before creating consolidation labels, have the transaction ID, date, and time of the consolidation.

1. To create consolidation labels:
2. Access Label Manager and click Create—see “Managing Labels” on page 243.
3. In Name, enter a label name.
   Limit: 50 characters
4. In Consolidation to Label, select a consolidation.
   The most recent five completed consolidations are available. For each, this information displays:
   - Transaction ID
   - The date and time of execution
5. To analyze consolidation metadata, select the label and click Export.
Renaming Labels

To rename consolidation labels:

1. Access Label Manager, select a label and click Rename—see “Managing Labels” on page 243.
2. In New Name, enter a name.
3. Click OK.

Viewing Consolidation Label Information

To view consolidation label information:

1. Access Label Manager, select a label and click View—see “Managing Labels” on page 243.
2. In View Label Info, review information:
   - Label name
   - Creation time
   - Consolidation name
   - Archive name
   - Number of entities
   - Top entity (Parent): database name, archive version number
   - All other entities: database name, archive version number
   - The scenario
3. Optional: To print information, click Print.
4. Optional: To copy information to paste, click Copy.
5. Click OK.

Scenario Handling in the Consolidator

Subtopics

- Selecting Scenarios for Entities
- Adding or Selecting Scenarios for Entities in Consolidations

In consolidation structures, you select roll-up scenarios in the consolidated parent. In the child entities, you contribute the same scenario, or different scenarios. You can create variations on consolidations to compare the results.
When you select child entities in consolidations, you must select a scenario from the **Scenario** drop-down list. This becomes the scenario the child entity contributes to the consolidated parent. There is no restriction on the type of scenarios you enter—you can have different child entities contributing different scenarios.

You can create Expected Value scenarios by including the same child entity multiple times but contributing different scenarios and different percentage weights. The resulting consolidated parent has an Expected Value scenario that is a weighted average all contributing scenarios.

**Selecting Scenarios for Entities**

To select scenarios in child entities:

1. **Open a consolidation structure**
   
   See “Opening Local Consolidation Structures” on page 215 or “Opening Server Consolidation Structures” on page 216.

2. **On Tree View or Chart View, select an entity.**

3. **In Scenario, perform an action:**
   
   - To create scenarios, select `<New>`—see “Adding or Selecting Scenarios for Entities in Consolidations” on page 245.
   
   - To select scenarios, select a scenario.
   
   - To deselect scenarios, select `<none>`.

**Adding or Selecting Scenarios for Entities in Consolidations**

To create scenarios:

1. **Open a consolidation structure and, in Scenario, select `<New>`**
   
   See “Opening Local Consolidation Structures” on page 215 or “Opening Server Consolidation Structures” on page 216 and “Selecting Scenarios for Entities” on page 245.

2. **On Tree View or Chart View, select an entity.**

3. **In Scenario, perform an action:**

4. **Optional: To use a target scenario currently in the consolidated parent, in Scenario already exists in the parent, select a scenario.**
   
   Optional: Select Use scenario in all children.
   
   - Selected—All child entities contribute the same scenario.
   
   - Deselected—Each child entity contributes a different scenario. You must access each child entity and select a scenario.

5. **Optional: To create target scenarios in consolidated parents, select Scenario doesn’t exist in the parent and enter a name.**
When you create scenarios in consolidated parent entities, the same scenario is created in all intermediate parent entities for storing consolidation-specific data.

6 Click OK.

**About Exporting Consolidation Metadata for Extended Analytics**

You can now export consolidation metadata for extended querying and reporting to your Oracle, IBM DB2, or SQL database. This enables you to identify and analyze consolidation data for entities and better query entity relationships. For example, you can define a custom consolidation to evaluate the allocation of resources to different projects and companies, or create consolidation reports that display general and specific entity relationships and contributions.

You can export these tables:

- **CN_STRUCTURE** — Contains basic consolidation structure information
- **CN_ENTITY** — Describes the entities in the hierarchy, indicating parent child relationships
- **CN_SCENARIO** — Describes the scenario used by an entity in the consolidation, indicating how it is used in the entity rollup, and the parent and child attributes being applied
- **CN_GRP_EQUITY** — Describes the equity subaccount groups rolled up into the specified parent equity subaccount. This table is linked to the child attributes table.
- **CN_GRP_BLOCKED** — Describes the blocking groups defined in the parent attributes for the given entity scenario. These groups define accounts that are not rolled up to the parent, so the original value of the parent is maintained before consolidation.
- **CN_GRP_ELIM** — Describes the elimination groups in the parent attributes for the given entity scenario. These groups define accounts that are not rolled up to the parent, but the corresponding parent account value will be zeroed out.
- **CN_ATTR_PARENT** — Describes the parent attributes, if applicable, for the entity scenario and the roll-up contribution made to the parent. The root entity of the consolidation does not define parent attributes for any of its scenario rows and will not contain an entry in this table. Each row additionally describes the periods that were preserved and not rolled up to the parent.
- **CNS_ATTR_CHILD** — Describes any child attributes for the entity scenario and the roll-up contribution made to the parent. The leaf entities of the consolidation do not define child attributes for their scenarios and do not contain an entry in this table. Each row additionally defines the consolidation method used for the roll-up, the period range, the ownership percentage, and an equity subaccount, if applicable.

For more information about these tables, see Chapter 3 of the *Oracle Hyperion Strategic Finance Administrator’s Guide*. 
Notes

● You can perform on-demand exports based on consolidation labels.
● The export populates relational database tables configured by a Strategic Finance Administrator. See Chapter 3 of the *Oracle Hyperion Strategic Finance Administrator’s Guide*.

**About the Consolidation Metadata**

You can export this additional consolidation data:

● Entities in the consolidation including the scenarios
● Scenarios for each entity
● Parent or child characteristics for each scenario
● For entity nodes — Name, hierarchy relationships, inclusion or exclusion indicators
● For scenario nodes — Name and inclusion or exclusion indicators
● For parent attributes:
  ○ Preserve periods indicator
  ○ Lists of blocked groups. Accounts do not roll up and parent values are retained
  ○ List of elimination groups. Accounts do not roll up.
● Child attributes:
  ○ Consolidation method, such as cost or minority interest
  ○ % ownership
  ○ Beginning period
  ○ End period
  ○ Equity: Subaccounts in parent and list of entity groups to roll up

**Requirements**

Before exporting consolidation metadata, ensure that an administrator has configured for extended analytics as follows:

● If using an Oracle database, ensure that you have these system privileges in Oracle:
  ○ ALTER ANY [INDEX/TABLE/SEQUENCE]
  ○ CREATE ANY [INDEX/TABLE/SEQUENCE]
  ○ DROP ANY [INDEX/TABLE/SEQUENCE]
● **Database Connectivity Enabled** is enabled on the External Database dialog
● **Enable EA Consolidation Tables** is selected on the Extended Analytics Database Configuration dialog before the database tables are created.
Exporting Consolidation Metadata

To export consolidation metadata:

1. Ensure that an administrator satisfied the requirements identified above.
2. Ensure that the Strategic Finance database contains the consolidation.
3. Launch Strategic Finance and connect to the Strategic Finance server.
4. Open the consolidation.
5. Create a label. See “Creating Labels” on page 243.
6. On Label Manager, select the label and click Export.
   The consolidation metadata in the label loads to the database tables.
7. Using your relational database tools, join and analyze the amalgamated data by performing tasks such as:
   - Querying CN_ENTITY for the child (immediate) entities of the root.
   - Querying CN_ENTITY with the structure id for the root level entity of the consolidation.
   - Querying CN_SCENARIO with the entity id to identify parent scenarios.
   - Querying CN_SCENARIO for scenario and attribute information, such as ownership percentage, consolidation method, and include/exclude flag.
   - Joining CN_ENTITY and ENTITY to match the entity by name.
   - Joining CN_SCENARIO and SCENARIO to match the scenario by name.
   - Querying FACT for all analysis data.
Translating Currencies

In This Chapter

About Currency Translator ............................................................................... 249
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Currency Translator Default Assignments .............................................................. 255
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About Currency Translator

Subtopics

- Using the Currency Translator
- Setting General Information About Currency Translations
- Setting Exchange Rates for Currency Translations
- Rules for Importing Exchange Rates
- Revaluations
- Avoiding Revaluation in Equity Accounts
- Copying Local Files to the Server for Currency Translation
- Currency Translator Retained Earnings Adjustment

Currency Translator expresses data in international currencies when creating multinational financial models. For example:

- A financial model including international subsidiaries, and the data is in different currencies.
- Associates or lenders in other countries need your data expressed in their national currency.

Using Currency Translator, you add exchange rates to financial models and assign those rates to currency accounts to translate the data to a new currency. After you translating, you can view or print reports showing the results.

If you are translating data from a company in a country with high inflation, please review Currency Translator Calculations before translating the data—you should remeasure the data first.

**Note:** Use Currency Translator to apply rates to currency accounts only. You cannot apply rates to accounts expressed in items or ratios.
Using the Currency Translator

To use Currency Translator:

1. Select Analysis, then Currency Translator.
   A warning is displayed stating that Strategic Finance adds Currency Translator accounts to the model.

2. Click OK to display Currency Translator.
   The actual exchange rates are defined in Currency Translator memo accounts added to the Accounts spreadsheet:
   - v100.00.000 Weighted Average Exchange Rate
   - v105.00.000 Period End Exchange Rate
   - v110.00.000 Equity Historical Exchange Rate
   - v115.00.000 User Defined Exchange Rate—The only subaccountable Currency Translator account.

   By default, the v115 rate is assumed for all subaccounts.

3. Select General Information to define basic currency translation information—see “Setting General Information About Currency Translations” on page 250.


5. Click Report to see the Exchange Rates Report.
   See “Viewing Currency Translator Reports” on page 264.

6. Click OK.

Setting General Information About Currency Translations

On General Information, you define source and target currencies, exchange scales, and rate names, if applicable.

For importing exchange rates, see “Rules for Importing Exchange Rates” on page 252 before proceeding.

To set general currency translation information:

   See “Using the Currency Translator” on page 250.

2. Select General Information.

3. Under Define Exchange Rates As, select the currency-to-currency type conversion.
   - The first box is the destination currency.
Currency Translator assumes the default currency in the Summary Information is the translated currency.

See “Specifying File Summary Data Displayed in Reports” on page 50

- The second box is the source currency.

For example, you are translating Dollars per Peso. The rate in the memo account is the number of Dollars equalling one Peso.

If you do not see the currency in the list, enter the name.

4 **Optional:** Under Scale, change the scale of the translated data.

Change the scale when more of one currency to makes less of the other. For example, you change the scale to millions or thousands to eliminate trailing zeros.

As with the default currency, enter the default scale in File, then Summary Info, and then see the following link:

See “Specifying File Summary Data Displayed in Reports” on page 50

5 **Optional:** Select Use Rates from Current Source File to import forecasted rates, and click Browse to select a file.

After choosing a file, click Import Rates to load the rates. This creates a dynamic link—any changes made to the source file affect the translated file. Last Imported Source File and Last Imported Date reflect the most recent import.

6 Set exchange rates—see “Setting Exchange Rates for Currency Translations” on page 251

7 Click Translate.

**Setting Exchange Rates for Currency Translations**

- To set exchange rates for currency translation:
  1 **Access the Currency Translator.**

    See “Using the Currency Translator” on page 250.

  2 **Select Assigning Exchange Rates.**

  3 **Under Account/Dialog Variable select accounts.**

  4 **Under Exchange Rate select exchange rates:**

    - Weighted Average Exchange Rate
    - Period End Exchange Rate
    - Equity Historical Exchange Rate
    - User Defined Exchange Rate—enter custom exchange rates in the spreadsheet

  5 Click Translate.
Rules for Importing Exchange Rates

When you import exchange rates, follow these rules:

- Years in source but not in destination files are not imported.
- Exchange rates for time periods in destination but not source files, are not imported. This also applies to subperiods.
- The source file can have more detail than the destination file. For example, the source file can be in months and the destination file in quarters. However, the source file cannot have less detail than the destination file.
- The source and destination files must have matching fiscal year ends.
- Source files must closed.
- If the source and destination files are password-protected, the passwords must match.
- You must calculated source files before importing.

Revaluations

Currency Translator translates only the first time period and time periods with value changes, and calculates others. This avoids revaluations and provides accurate results without requiring a blended exchange rate of all equity components.

For example, consider these values in American dollars:

<table>
<thead>
<tr>
<th>Year</th>
<th>Dollars</th>
<th>Rate of Exchange</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Stock in 2003</td>
<td>100</td>
<td>exchange rate: 3</td>
</tr>
<tr>
<td>Common Stock issued in 2004</td>
<td>50</td>
<td>exchange rate: 4</td>
</tr>
<tr>
<td>Common Stock in 2004</td>
<td>150</td>
<td>exchange rate: 3</td>
</tr>
</tbody>
</table>

If you use the standard method to translate American dollars to the German deutschmark, these values result:

<table>
<thead>
<tr>
<th>Common Stock in 2003</th>
<th>300</th>
<th>translated at 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commons Stock issued in 2004</td>
<td>200</td>
<td>translated at 4</td>
</tr>
<tr>
<td>Common Stock in 2004</td>
<td>450</td>
<td>translated at 3</td>
</tr>
<tr>
<td>Revaluation of Stock</td>
<td>-50</td>
<td></td>
</tr>
</tbody>
</table>

The translations should be:

- Equity—from 100 to 300
- Issuance—from 50 to 200

The total should be 500, but the translation is 450—a -50 revaluation difference. This error occurs when calculating every time period, regardless of change.
To avoid this error, Currency Translator translates the equity of the first period at the equity historical rate, and translates subsequent periods only if the value changes. Otherwise, they use the first period’s value. The values are correct:

<table>
<thead>
<tr>
<th>Table 11  Currency translation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Common Stock in 2003</strong></td>
</tr>
<tr>
<td><strong>Common Stock issued in 2004</strong></td>
</tr>
<tr>
<td><strong>Common Stock in 2004</strong></td>
</tr>
<tr>
<td><strong>Revaluation of Stock</strong></td>
</tr>
</tbody>
</table>

See “Avoiding Revaluation in Equity Accounts” on page 253.

**Avoiding Revaluation in Equity Accounts**

For equity accounts, Currency Translator translates the first period balance and all subsequent flows. As a result, there are no values in the .04 accounts. If there were values in the .04 accounts before translation, they remain in the original currency afterwards. Equity accounts are designed to avoid revaluation, so you should zero the .04 values for all equity accounts.

**Copying Local Files to the Server for Currency Translation**

If you copy a local file to a server and that file uses translation rates from another local file, it defaults to using residual rates from the last translation run. On subsequent retrievals of the file copied to the server, the local client searches for the local file containing the translation rates.

**Currency Translator Retained Earnings Adjustment**

Currency Translator assumes that exchange rates for retained earnings reflect the historical basis of the account, and translates retained earnings in historical periods. It calculates the retained earnings and compares it to the translated data. If they do not match, Currency Translator adjusts the translated data to balance the Funds Flow report.

Currency Translator calculates retained earnings as:

<table>
<thead>
<tr>
<th>Retained Earnings =</th>
<th>Retained earnings (prior period)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+ Income available for common dividends</td>
</tr>
<tr>
<td></td>
<td>- Common dividends</td>
</tr>
<tr>
<td></td>
<td>+ Funds flow adjustment: sources</td>
</tr>
<tr>
<td></td>
<td>- Funds flow adjustment: uses</td>
</tr>
</tbody>
</table>
Retained Earnings Adjustment = Retained earnings

- Retained earnings (prior periods)
- Income available for common dividends
+ Common dividends
- Funds flow adjustment (sources)
+ Funds flow adjustment (uses)

Strategic Finance adds the retained earnings adjustment to the account structure so you can review how it calculates. The Translator adjusts the amount and creates an account called the Retained Earnings Adjustment Account (v2853.0.000)

Example:
In Deutschemarks
(adjustment applies to all historical periods, except the first historical period)

<table>
<thead>
<tr>
<th>Item</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retained earnings</td>
<td>500</td>
<td>2000</td>
</tr>
<tr>
<td>Net income</td>
<td></td>
<td>2100</td>
</tr>
<tr>
<td>Dividends</td>
<td></td>
<td>600</td>
</tr>
<tr>
<td>Equity exchange rate</td>
<td>.7</td>
<td>.7</td>
</tr>
<tr>
<td>Year-end exchange rate</td>
<td>.667</td>
<td>.75</td>
</tr>
<tr>
<td>Weighted avg. rate</td>
<td></td>
<td>.72</td>
</tr>
</tbody>
</table>

In U.S. Dollars - After Translation

<table>
<thead>
<tr>
<th>Item</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retained earnings</td>
<td>350</td>
<td>1400 direct translation at equity historical rate</td>
</tr>
<tr>
<td>Net income</td>
<td></td>
<td>1512 weighted average rate</td>
</tr>
<tr>
<td>Dividends</td>
<td></td>
<td>432 weighted average rate</td>
</tr>
</tbody>
</table>

The retained earnings calculated by the normal retained earnings formula is:

\[
350 \\
1512 \\
(432)
\]
The retained earnings is not calculated for 1400. This difference of 30 is the retained earnings adjustment.

Adding Currency Codes

All ISO recognized currencies are available and internally tracked in currencies.xml. You specify currency for use at the entity level using Summary Information. Although it is not recommended, you can add currencies to applications using the currencies_user.xml file.

Currency Translator Default Assignments

Subtopics

- Assignments by Account Type
- Default Assignments

Assignments by Account Type

The default exchange rates by account type:

Input Accounts

- Income and expense accounts default to Weighted Average Exchange Rate.
- Asset and liability accounts (.00 accounts) default to the Period End Exchange Rate.
- Equity accounts default to the Equity Historical Exchange Rate.
- Increases in asset and liability accounts (.01 accounts) default to the Weighted Average Exchange Rate.

Calculated Accounts

- Cash Flow from Operations defaults to the Weighted Average Exchange Rate.
- Present Value of Cash Flow (PVCF) defaults to the Period End Exchange Rate for the last historical year.
- Future Value of Residual Value (FVRV) defaults to Period End Exchange Rate for the last forecast period.

Certain accounts such as Cost of Capital and Number of Shares do not have exchange rates.
Default Assignments

This table lists the default exchange rates for accounts:

<table>
<thead>
<tr>
<th>Dialog Variable</th>
<th>Description</th>
<th>Default Exchange Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.00.200</td>
<td>Current Stock Price</td>
<td>Period End</td>
</tr>
<tr>
<td>5.00.500</td>
<td>Market Value of Debt</td>
<td>Period End</td>
</tr>
<tr>
<td>5.00.520</td>
<td>Underfunded Pension Liabilities</td>
<td>Period End</td>
</tr>
<tr>
<td>5.00.540</td>
<td>Market Value of Other Obligations</td>
<td>Period End</td>
</tr>
<tr>
<td>5.00.560</td>
<td>Investment of Stocks and Bonds</td>
<td>Period End</td>
</tr>
<tr>
<td>5.00.700</td>
<td>Market Value of Other Liabilities</td>
<td>Period End</td>
</tr>
<tr>
<td>5.00.720</td>
<td>Market Value of Other Assets</td>
<td>Period End</td>
</tr>
<tr>
<td>5.00.820</td>
<td>Economic Profit Normalized Earnings Adjustment</td>
<td>Weighted Average</td>
</tr>
<tr>
<td>5.00.900</td>
<td>Valuation Adj. for Cost and Equity: SVA</td>
<td>Period End</td>
</tr>
<tr>
<td>5.00.910</td>
<td>Valuation Adj. for Cost and Equity: EP</td>
<td>Period End</td>
</tr>
<tr>
<td>5.00.920</td>
<td>Valuation Adj. for Minority Interest: SVA</td>
<td>Period End</td>
</tr>
<tr>
<td>5.00.930</td>
<td>Valuation Adj. for Minority Interest: EP</td>
<td>Period End</td>
</tr>
<tr>
<td>315.00.300</td>
<td>Initial Loss Balance</td>
<td>Period End</td>
</tr>
<tr>
<td>316.00.300</td>
<td>Initial Gain Balance</td>
<td>Period End</td>
</tr>
<tr>
<td>316.00.500</td>
<td>Initial Balance of Taxes Paid</td>
<td>Period End</td>
</tr>
</tbody>
</table>

Currency Translator Calculation and Adjustment Process

Subtopics

- Remeasurement for High Inflation
- Adjustment Exceptions
- Currency Translator, Cash Flow and Valuation
- Revaluation
- Translation Adjustment

Currency Translator automatically calculates the exchange data for all currency accounts simultaneously. When necessary, it adjusts the accounts so that your model remains balanced. It places the adjustments in special accounts where you can review them.
Note: Currency Translator assumes all financial data in a file share one currency. To use data in several currencies, change foreign currency entries to the operational currency before translating the file.

Currency Translator adjustment information is in several reports: Funds Flow, Direct Cash Flow, Indirect Cash Flow, and FAS 95—see “Currency Translator Information in Other Reports” on page 265.

Remeasurement for High Inflation

Currency Translator supports FASB 52, so fluctuations in the exchange rates are recorded as equity, not income. If you are modeling a company in a country with high inflation and the parent company is in a country with low inflation, remeasure the company financial statements before translation.

After remeasuring, you can translate all financial statements using one exchange rate: Currency Translator will not calculate the income effect. This is useful for companies presenting last year’s financial data based on the current year’s currency.

Adjustment Exceptions

Subtopics

- Fixed Assets
- Accumulated Depreciation
- Fixed Asset Accounts
- Other Intangibles
- Long-Term Debt
- Investment Equity Method

When the adjustments are complex, Currency Translator adjusts translated data in a unique manner as described in this topic.

Fixed Assets

Currency Translator makes a special adjustment when the fixed asset formula is:

<table>
<thead>
<tr>
<th>Fixed Assets =</th>
<th>Fixed assets (prior period)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+ Fixed Capital Investment (FCI)</td>
</tr>
<tr>
<td></td>
<td>? Retirements</td>
</tr>
</tbody>
</table>
Example:

<table>
<thead>
<tr>
<th>Item</th>
<th>Deutschemarks</th>
<th>Rate</th>
<th>Dollars</th>
<th>Rate Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed assets (year 1)</td>
<td>6000</td>
<td>.75</td>
<td>4500</td>
<td>year-end rate (year 1)</td>
</tr>
<tr>
<td>FCI (year 2)</td>
<td>700</td>
<td>.72</td>
<td>504</td>
<td>weighted average rate</td>
</tr>
<tr>
<td>Retirements (year 2)</td>
<td>(600)</td>
<td>.72</td>
<td>(432)</td>
<td>weighted average rate</td>
</tr>
<tr>
<td>Fixed assets (year 2)</td>
<td>6100</td>
<td>.60</td>
<td>3660</td>
<td>year-end rate (year 2)</td>
</tr>
</tbody>
</table>

The fixed assets formula expressed in dollars does not balance, that is, $4500 + 504 - 432 - 3660$. Currency Translator adjusts the amount and store the adjustment in Adjustment to Fixed Assets (v2170.4.000).

Following is the adjustment formula:

<table>
<thead>
<tr>
<th>Adjustment to Fixed Assets =</th>
<th>Fixed Assets</th>
<th>3660</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Fixed assets (prior period)</td>
<td>4500</td>
</tr>
<tr>
<td></td>
<td>- Fixed Capital Investments</td>
<td>504</td>
</tr>
<tr>
<td></td>
<td>+ Retirements</td>
<td>432</td>
</tr>
<tr>
<td></td>
<td>Result</td>
<td>- 912</td>
</tr>
</tbody>
</table>

Accumulated Depreciation

Currency Translator makes a special adjustment when the accumulated depreciation formula is:

<table>
<thead>
<tr>
<th>Accumulated Depreciation =</th>
<th>Accumulated depreciation (prior period)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+ Depreciation expense (Funds)</td>
</tr>
<tr>
<td></td>
<td>Accumulated depreciation on retirements</td>
</tr>
</tbody>
</table>

Example:

<table>
<thead>
<tr>
<th>Depreciation</th>
<th>Deutschemarks</th>
<th>Rate</th>
<th>Dollars</th>
<th>Rate Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acc. Dep. (year 1)</td>
<td>1200</td>
<td>.75</td>
<td>900</td>
<td>year-end rate (year 1)</td>
</tr>
<tr>
<td>Depr. exp. (year 2)</td>
<td>1220</td>
<td>.72</td>
<td>878.4</td>
<td>weighted average rate</td>
</tr>
<tr>
<td>Retirements (year 2)</td>
<td>(120)</td>
<td>.72</td>
<td>(86.4)</td>
<td>weighted average rate</td>
</tr>
<tr>
<td>Acc. Dep. (year 2)</td>
<td>2300</td>
<td>.60</td>
<td>1380</td>
<td>year-end rate (year 2)</td>
</tr>
</tbody>
</table>

In this circumstance, Depreciation Expense: Funds = Depreciation Expense: Book before translation but not after, so the dollars column is not balanced. Currency Translator adjusts
depreciation expense to correct the imbalance by adding -312 to 878.4, and stores the adjustment value in the Adjustment to Accumulated Depreciation (v2190.4.000) account.

The adjustment formula:

<table>
<thead>
<tr>
<th>Adjustment to Accumulated Depreciation</th>
<th>Accumulated depreciation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Accumulated depreciation (prior paid)</td>
</tr>
<tr>
<td></td>
<td>- Depreciation expense (funds)</td>
</tr>
<tr>
<td></td>
<td>+ Accumulated depreciation on retirements</td>
</tr>
</tbody>
</table>

**Fixed Asset Accounts**

Unlike cash accounts, fixed-asset accounts rely on additions and retirements, so Currency Translator adjusts them differently. For example, Goodwill:

<table>
<thead>
<tr>
<th>Goodwill =</th>
<th>Goodwill (prior period)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+ Additions to goodwill</td>
</tr>
<tr>
<td></td>
<td>- Amortization of goodwill</td>
</tr>
</tbody>
</table>

Currency Translator adjusts it:

<table>
<thead>
<tr>
<th>Adjustment to Goodwill =</th>
<th>Goodwill</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Goodwill (prior period)</td>
</tr>
<tr>
<td></td>
<td>- Additions to goodwill</td>
</tr>
<tr>
<td></td>
<td>+ Amortization of goodwill</td>
</tr>
</tbody>
</table>

The Goodwill adjustment value is stored in the Adjustment to Goodwill (v2400.4.000) account. Currency Translator adjusts the other fixed-asset accounts as follows:

**Other Intangibles**

<table>
<thead>
<tr>
<th>Adjustment to Other Intangibles =</th>
<th>Other intangibles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Other intangibles (prior period)</td>
</tr>
<tr>
<td></td>
<td>- Additions to other intangibles</td>
</tr>
<tr>
<td></td>
<td>+ Amortization of other intangibles</td>
</tr>
<tr>
<td></td>
<td>Adjustment to other intangibles</td>
</tr>
</tbody>
</table>
## Long-Term Debt

\[
\text{Adjustment to Long-Term Debt} = \text{Long-term debt: scheduled} \\
\quad - \text{Long-term debt: scheduled (prior period)} \\
\quad - \text{Increase in long-term debt: scheduled} \\
\quad - \text{Non-cash interest on long-term debt: scheduled} \\
\quad \text{Long-term Debt}
\]

## Investment Equity Method

\[
\text{Adjustment to Inv. Eq. Method} = \\
\quad \bullet \text{Investments: equity method} \\
\quad \bullet \text{Investments: equity method (prior period)} \\
\quad \bullet \text{Increase in Investments: equity method} \\
\quad \bullet \text{Dividends from subsidiaries} \\
\quad \bullet +\text{Earnings from investments: equity} \\
\quad \bullet \text{Adjustment to Inv. Equity}
\]

## Currency Translator, Cash Flow and Valuation

### Subtopics
- Cash Flow from Operations
- Present Value of Cash Flow
- Cost of Capital
- Future Value of Residual Value
- Shareholder Value and Dividend Discount Method
- Economic Profit

### Cash Flow from Operations

Currency Translator neither creates nor destroys cash flows when translating one currency to another—it applies an exchange rate to Cash Flow from Operations and translates directly. It does the same for the items constituting Cash Flow from Operations, which can cause an imbalance. To rebalance, Currency Translator makes an adjustment and stores the adjustment value in the Cash Flow Adjustment: Currency (v4090) account.
**Present Value of Cash Flow**

Currency Translator neither creates nor destroys values when translating from one currency to another—it applies the year-end exchange rate from the last year in history to Present Value of Cash Flow and translates it directly.

*Note:* You can change the exchange rate.

**Cost of Capital**

Because Currency Translator translates both the Cash Flow from Operations and Present Value of Cash Flow directly, it can calculate the Cost of Capital for each period. The Cost of Capital may be different after translation because it reflects the original currency’s economic factors. After translation, it should balance the future and present values of the cash flows.

**Future Value of Residual Value**

Currency Translator translates the Future Value of Residual Value directly—it applies the year-end exchange rate from the last year in forecast period to Future Value of Residual Value and translates it directly.

*Note:* You can reassign the exchange rate if needed.

Currency Translator calculates the residual value based on the method you select—see “Modeling Valuation Accounts” on page 147. In some circumstances, it may be necessary to use a value when translating data—see “Shareholder Value and Dividend Discount Method” on page 261.

**Shareholder Value and Dividend Discount Method**

These are the residual value methods and values used:

<table>
<thead>
<tr>
<th>Method</th>
<th>Specific Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perpetuity Method</td>
<td>Long-term cost of capital</td>
</tr>
<tr>
<td>Growth in Perpetuity</td>
<td>Long-term cost of capital</td>
</tr>
<tr>
<td>Value Growth Duration</td>
<td>Long-term cost of capital</td>
</tr>
<tr>
<td>Price/Earnings Ratio</td>
<td>Normalized earnings adjustment</td>
</tr>
<tr>
<td>Market-to-Book Ratio</td>
<td>Market-to-book ratio</td>
</tr>
<tr>
<td>Liquidation Value</td>
<td>Liquidation value</td>
</tr>
</tbody>
</table>
**Economic Profit**

Economic profit only supports the perpetuity method, and its value is the residual NOPAT adjustment.

**Revaluation**

Currency Translator distinguishes between actual increases and decreases in balance sheet accounts and period-to-period changes caused by currency fluctuations. For example:

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>$100</td>
<td>$150</td>
</tr>
<tr>
<td>Increase in cash</td>
<td>$50</td>
<td></td>
</tr>
</tbody>
</table>

If you translate the preceding dollar amounts to French Francs using these exchange rates:

<table>
<thead>
<tr>
<th>Year</th>
<th>Exchange</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>4 FF per $1</td>
</tr>
<tr>
<td>2004</td>
<td>5 FF per $1</td>
</tr>
</tbody>
</table>

After translation, the data is:

<table>
<thead>
<tr>
<th>Amount</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>FF400</td>
<td>FF750</td>
</tr>
<tr>
<td>Increase in cash</td>
<td>FF250 ($50 x 5)</td>
<td></td>
</tr>
</tbody>
</table>

After translation, the increase in cash is incorrect because of the currency fluctuation—it should be FF350. Currency Translator adjusts for the fluctuation, in this case adding FF100, and notes the adjustment value in the Adjustment To Cash (v2000.04.000) account.

Most balance sheet accounts must be adjusted similarly, and adjustment values recorded in additional .04 accounts. Currency Translator sometimes makes different adjustments—see “Translation Adjustment” on page 262.

**Translation Adjustment**

Currency Translator translates most balance sheet accounts at the year-end exchange rate. It translates equity accounts using the equity historical exchange rate. In forecast periods, it does not translate retained earnings, but translates the weighted average of the items constituting retained earnings. Because the use of different exchange rates causes an imbalance, Currency Translator adjusts the data.

If you do not use the default exchange rate assignments (see “Setting Exchange Rates for Currency Translations” on page 251), Currency Translator uses this formula to calculate CTA:
Currency Translator enters the value in the currency translation adjustment account, in the equity section of the balance sheet. Period-to-period changes appear on the cash and funds flow reports.

**Note:** The account does not have an analysis trail because the data is not available after translation.

**In Dollars (U.S.)**

<table>
<thead>
<tr>
<th>Cash</th>
<th>2003</th>
<th>Type</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>100</td>
<td>Cash</td>
<td>100</td>
</tr>
<tr>
<td>Debt</td>
<td>100</td>
<td>Retained Earnings</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sales</td>
<td>100</td>
</tr>
</tbody>
</table>

The cash from sales pays the debt.

<table>
<thead>
<tr>
<th>Period end rate</th>
<th>2003</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighted avg. rate</td>
<td>2004</td>
<td>5</td>
</tr>
<tr>
<td>Period end rate</td>
<td>2004</td>
<td>6</td>
</tr>
</tbody>
</table>

After the translation:

<table>
<thead>
<tr>
<th>Cash or Dept</th>
<th>2003</th>
<th>Type</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>400</td>
<td>Cash</td>
<td>600</td>
</tr>
<tr>
<td>Debt</td>
<td>400</td>
<td>Retained Earnings</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjustment</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sales</td>
<td>500</td>
</tr>
</tbody>
</table>
Currency Translator Reports

Subtopics

- Viewing Currency Translator Reports
- Currency Translator Report Options
- Currency Translator Information in Other Reports

Viewing Currency Translator Reports

To Currency Translator reports:

   See “Using the Currency Translator” on page 250.

2. View Currency Translator information:
   - Exchange Rates—Accounts containing exchange rates.
   - Time Periods—Account values by time period.
   - Accounts—Accounts using exchange rates.
   - Exchange Rate Used—Descriptions of the exchange rates used by each account.

3. Optional: Click Options to view different information in the report—see “Currency Translator Report Options” on page 264.

Currency Translator Report Options

To change the information displayed in Currency Translator reports:

1. Optional: Select Show Exchange Rates to display the exchange rate accounts.

2. Optional: Select View Account Assignments options:
   - Show Exceptions from Default Assignments
     Shows only the accounts not using the default exchange rates.
   - Show Assignments of All Accounts
     Shows all accounts and their exchange rate assignments.
   - Do Not Show Account Assignments
     Does not display the exchange rate assignments.

3. Click OK.
## Currency Translator Information in Other Reports

Currency Translator creates .04 accounts containing adjustment values which are displayed in these reports.

<table>
<thead>
<tr>
<th>Report</th>
<th>Adjustment Accounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds Flow Report</td>
<td>Total Adjustment to Assets:</td>
</tr>
<tr>
<td></td>
<td>• Sums all .04 asset accounts</td>
</tr>
<tr>
<td></td>
<td>• Part of Total Uses of Funds</td>
</tr>
<tr>
<td></td>
<td>Total Adjustment to Liabilities:</td>
</tr>
<tr>
<td></td>
<td>• Sums all .04 liability accounts</td>
</tr>
<tr>
<td></td>
<td>• Part of the Total Sources of Funds</td>
</tr>
<tr>
<td>Direct Cash Flow Report</td>
<td>Total of all .04 accounts</td>
</tr>
<tr>
<td>Indirect Cash Flow Report</td>
<td>Total of all .04 accounts.</td>
</tr>
<tr>
<td>FAS 95 Report</td>
<td>Total of all .04 accounts.</td>
</tr>
</tbody>
</table>
Performing Advanced, What If? Analysis

In This Chapter

- About What If? Analysis ................................................................. 267
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- Using Sensitivity Analysis ............................................................... 272
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About What If? Analysis

There are three What If? Analysis utilities for creating financial model variations:

- Scenario Manager—you create variations, or scenarios, on a model, with accounts specific to that scenario.
- Sensitivity Analysis—you can change values for some accounts to evaluate the effects on key metrics.
- Goal Seek—you set target values for accounts, evaluate changes to other accounts to reach those target values.

Using Scenarios

Subtopics

- Accessing the Scenario Manager
- Maintaining Scenarios
- Creating Scenarios
- Displaying Multiple Accounts Values in Scenarios
- Sorting Scenarios
- Exporting Scenarios
- Working with Combined Scenarios

Scenarios are variations on an analysis. You create scenarios to evaluate different sets of forecast assumptions, evaluating different possible outcomes in strategic planning.
Accessing the Scenario Manager

To access Scenario Manager, perform these tasks:

1. From the Analysis and then What if Analysis
2. Click Scenario Manager.

Maintaining Scenarios

To maintain scenarios:

1. Access Scenario Manager.
   
   See “Accessing the Scenario Manager” on page 268.

2. Select Account Scenarios.
   
   The Scenario Manager dialog displays the scenarios in a model. Base and Actual are default scenarios:
   
   - Base—contains the original inputs of each account.
   - Actual—isolates actual data.

   Note: The accounts for the Base and Actual scenarios cannot be edited.

3. Perform an action:
   
   - To create a scenario, click New. See “Creating Scenarios” on page 268.
   - To rename a scenario, in Scenarios, select a scenario, and click Rename.
   - To delete a scenario, in Scenarios, select a scenario, and click Delete.
   - In Comments, enter comments about the scenario.

4. In Scenarios, select a scenario.

5. In Scenario Type, select a type.

6. Optional: In Use Actuals, indicate if and when to compare actual and budgeted forecast data.

7. In Accounts, select the accounts that should be specific to that scenario.

8. Optional: Select Show only selected accounts to hide deselected accounts.

9. Click OK.

Creating Scenarios

To create scenarios:

1. In Scenario to Create, enter a name.
   
   The name must be unique among scenarios in the model. Not case sensitive.
Displaying Multiple Accounts Values in Scenarios

To display multiple account values in a scenario:

1. **Access Scenario Manager.**
   
   See “Accessing the Scenario Manager” on page 268.

2. **Select Account Scenarios.**

3. **In Scenario,** select a scenario.

4. **Select Outputs.**

5. **In Accounts,** select accounts:

6. **Optional:** Select **Store outputs for all accounts** to store output values for all accounts when saving files.

7. **Optional:** Select **Store subaccounts if main account is stored** to save outputs for subaccounts when saving main accounts.

8. **Optional:** Select **Store dimensional members if main account is stored** to save the outputs for all dimensions when saving main accounts.

9. **Click OK.**

Sorting Scenarios

To reorder the scenarios:

1. **Access Scenario Manager.**
   
   See “Accessing the Scenario Manager” on page 268.

2. **Select Sort.**

3. **Under Scenario,** select a scenario.

4. **Click the arrows to reorder the scenario.**

5. **Click OK.**

Exporting Scenarios

To export scenarios:

1. **Access Scenario Manager.**
   
   See “Accessing the Scenario Manager” on page 268.

2. **Select Scenario to Export.**
3 Under **Scenario Type**, view scenario types.
4 Under **Scenario to Export**, select scenarios.
5 Click **OK**.

**Working with Combined Scenarios**

Subtopics
- Sample Combined Scenario
- Combined Scenarios Requirements
- Creating Combined Scenarios

Use Combined Scenarios to create and evaluate variant models by combining multiple scenarios into a single scenario, saving you time in data entry.

**Sample Combined Scenario**

For a combined scenario example, assume an entity with this Base Scenario:

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Account</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base</td>
<td>Sales</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Interest on Debt</td>
<td>6%</td>
</tr>
</tbody>
</table>

You create these scenarios on the Sales account:

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Account</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forecasting 1</td>
<td>Sales</td>
<td>12%</td>
</tr>
<tr>
<td>Forecasting 2</td>
<td>Sales</td>
<td>14%</td>
</tr>
<tr>
<td>Forecasting 3</td>
<td>Sales</td>
<td>16%</td>
</tr>
</tbody>
</table>

You create these scenarios on the Interest account:

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Account</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financing 1</td>
<td>Interest on Debt</td>
<td>7%</td>
</tr>
<tr>
<td>Financing 2</td>
<td>Interest on Debt</td>
<td>3%</td>
</tr>
<tr>
<td>Financing 3</td>
<td>Interest on Debt</td>
<td>4%</td>
</tr>
</tbody>
</table>

To evaluate values in Sales with different values in Interest, you create a combined scenario with information from the Forecasting scenario, adding different Financing scenarios to evaluate varying Interest on Debt account numbers.
You can create several Combined Scenarios, each of which pulls data from the different preceding scenarios:

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Account</th>
<th>Value</th>
<th>Combination</th>
<th>Scenario</th>
<th>Account</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forecasting 2</td>
<td>Sales</td>
<td>14%</td>
<td>Combined Scenario 1</td>
<td>Financing 3</td>
<td>Interest on Debt</td>
<td>4%</td>
</tr>
<tr>
<td>Forecasting 1</td>
<td>Sales</td>
<td>12%</td>
<td>Combined Scenario 2</td>
<td>Financing 2</td>
<td>Interest on Debt</td>
<td>3%</td>
</tr>
<tr>
<td>Forecasting 3</td>
<td>Sales</td>
<td>16%</td>
<td>Combined Scenario 3</td>
<td>Financing 1</td>
<td>Interest on Debt</td>
<td>7%</td>
</tr>
</tbody>
</table>

**Combined Scenarios Requirements**

These rules apply in creating Combined Scenarios:

- Combined Scenarios inherit the Actuals Rule from the last Scenario in the list. Each scenario in the combined scenario uses the same actuals rule in the last scenario listed in Selected Scenarios. See “Creating Combined Scenarios” on page 271.

- Overlapping accounts may be used, but the order of the Scenarios is important. If combined scenario accounts exist in multiple account scenarios, calculations use the data from the account in the last scenario in Selected Scenarios. See “Creating Combined Scenarios” on page 271. To use a different version of the account, select the name of the scenario in Selected Scenarios, and reorder it.

- An account with Actuals must have at least as many Time Periods as the Scenario to which it belongs. If an account is introduced by a scenario, it must use Actuals for at least as many periods as the Account scenario specifies. It may use Actuals for more periods if the last scenario in Selected Scenarios requires—see “Creating Combined Scenarios” on page 271.

- You cannot add new accounts or Subaccounts directly into Combined Scenarios. New accounts or subaccounts cannot be created in an Entity while you are in a Combined Scenario. To add subaccounts, access the Entity using the Accounts spreadsheet of the client application workspace.

**Creating Combined Scenarios**

Use the Scenario Manager—Combined Scenarios tab to create combined scenarios. See “Creating Combined Scenarios” on page 271 for rules.

➢ To create combined scenarios:

1. Select Analysis, then What if ?, and then Scenario Manager.
2. Select Combined Scenarios.
3. Click New.
4. In Create Combined Scenario, enter a name and click OK.
5. Optional: In Comments, enter a description.
6. In Available Scenarios, select a scenario and click >> to add it to Selected Scenarios.
Repeat for each scenario.

7 **Optional:** Select Warn about Overlapping Accounts to receive warnings with overlapping accounts between scenarios.

8 **Optional:** Use the arrows to reorder the scenarios in Selected Scenarios.

Follow these rules:

- Combined scenarios inherit the Actuals Rule from the last Scenario in **Selected Scenarios**.
- Overlapping accounts may be used, but the order of the scenarios is important.

9 Click **OK**.

**Using Sensitivity Analysis**

Subtopics

- Accessing Sensitivity Analysis
- Setting Global Sensitivity Analysis Options
- Setting Shareholder Value Options
- Setting Economic Profit Options
- Testing Sensitivity Analysis Results
- Using One Variable for Sensitivity Analysis

Use Sensitivity Analysis to manipulate selected accounts and evaluate the effect on key variables. For example, you can see how much you must increase product sales to balance an increase in manufacturing expenses.

You can use Sensitivity Analysis to isolate the “value drivers” in financial models. Value drivers are key variables that, when manipulated, impact values. Knowing which accounts affect your enterprise helps you make informed decisions.

There are three sensitivity models:

- Full Strategic Finance model
- Shareholder Value model
- Economic Profit model

**Accessing Sensitivity Analysis**

- To use Sensitivity Analysis:

1 Select **Analysis**, then **What if...?**, and then **Sensitivity Calculator**.

2 Set full model options.

   See “Setting Global Sensitivity Analysis Options” on page 273.

3 Set shareholder value options.
See “Setting Shareholder Value Options” on page 275.

4 Set economic profit options.

See “Setting Economic Profit Options” on page 277.

5 Test results in the matrix.

See “Testing Sensitivity Analysis Results” on page 278.

6 Click OK.

**Setting Global Sensitivity Analysis Options**

Use the Sensitivity Analysis—Full Model tab to analyze the entire model. Because it uses the full model, it has the longest calculation time.

To set the full model options for sensitivity analysis:

1. **Access Sensitivity Analysis.**

   See “Accessing Sensitivity Analysis” on page 272.

2. **Select Full Model.**

3. **In Sensitivity of**, select an account for analysis.

   **Note:** Accounts using scalar inputs or historical average forecast method are not listed. Accounts using Freeform Formulas sensitive to other accounts are included.

4. **In period**, select a time period.

   **Note:** To aggregate time periods, select **Multiplying By** in **Change by**.

**Exceptions**

This becomes **All Forecast Periods** when you select one of these accounts in the Sensitivity of field:

- SVA Variables
- EP Variables
- DDM Variables
- Cum. PV of Cash Flows
- Cum. PV of EP Cash Flows
- Cum. PV of Dividends
- PV of Residual Value
- PV of EP Residual Value
- PV of Equity Residual Value
- Corporate Value
- EP Corporate Value
- Estimated Equity Value
- Shareholder Value
- EP Shareholder Value
- Equity Value per Share
- Shareholder Value per Share
- EP Shareholder Value per Share

Relative variables in forecast time periods change to calculate the sensitivity of the valuation account.

5 In Display as, define how values are presented:

6 In Relative to (top), select the item on which the sensitivity of the item in Sensitivity of is determined and the calculation based on.

Enter information for the first account variable that is changed. This appears on the matrix.

- Account
  Select the top variable of the matrix on which the sensitivity is performed.
  The list includes all accounts from the model, plus:
  - Input accounts with no freeform formulas
  - Input accounts with freeform formulas using @input
  - Main accounts calculated as a sum of their subaccounts
  - Subtotal subaccounts
  - For accounts calculated through subaccounting and subtotal subaccounts, the increment percentage applies to the subaccounts’ output values. Using these accounts, you must select Multiplying by in the Change by field.
  - Calculated accounts such as Net Income are not included.

- Change by
  Select a method for changing the sensitivity variable:
  - Adding
    Add the change amount to the input value of the relative variable. The change amount is based on the input type and scale of the relative variable. For example:
    - An increment of 3 for A/R, if it is forecast in Days of Annualized Sales, adds 3 days to the input value of A/R.
    - An increment of 2 for Sales, if it is forecast as a Growth Rate, adds 2 percent to the input value of Sales.
    - An increment of 5 for Fixed Capital Investment, if it is forecast as Actual Value in Millions, adds 5 Million Dollars to the input value of Fixed Capital Investment.
  - Multiplying by
Multiplies the input value for the Relative to account by a percentage. For example: An increment of 2 for Sales, if it is forecast as a 10% Growth Rate, multiplies the input value of 10% by 2%, equalling 10.2%.

- **Change Amount**

  Enter the amount multiplied by or added to the Relative to account. The maximum is 999.9. You cannot enter negative amounts.

  Examples:
  
  - If you enter 2% for Sales Growth Rate and select Multiplying in the Change by field, Strategic Finance multiplies the Sales Growth Rate by 98% to obtain the -2% result and multiplies the Sales Growth Rate by 102% to obtain the +2%.
  
  - If you enter 2% for Sales Growth Rate and select Adding in the Change by field, Strategic Finance adds or subtracts 2% to calculate the results. So 10% becomes 8% and 12% growth rate.

- **Forecast**

  Displays the forecast method of the Relative account.

  To add another sensitivity variable, in And Relative to (left), select an .

  To perform a sensitivity using a second variable, enter information about the account (it appears left of the matrix). Complete the fields as you did in the Relative to fields.

  **Note:** The default account is Period End Exchange Rate unless you have saved another setting.

  You cannot the select the same account for both relative variables.

  To only perform an analysis using one variable, enter a zero for the change amount for one of the relative variables.

  **Click OK.**

  **Setting Shareholder Value Options**

  Use the Shareholder Value tab to perform a sensitivity analysis using a limited number of value driver variables from the Shareholder Value model. Because this is a subset, calculations are faster and Strategic Finance aligns the sensitivity analysis with the Full Model.

  To set the shareholder value options for sensitivity analysis:

  1. **Access Sensitivity Analysis.**

     See “Accessing Sensitivity Analysis” on page 272.

  2. **Select Shareholder Value.**

  3. **In Sensitivity of, select the variable for sensitivity analysis:**

     - Cumulative Present Value of Cash Flows
Present Value of Residual Value
Corporate Value
Shareholder Value
Shareholder Value per Share

4 In As, select a display option:
- Actual Value
  Displays the actual calculated values in the current file's scale.
- Change In
  Displays the change from the current value.
- Percent Change
  Displays the percentage change from the current value.

5 In Relative to (top), select the top variable of the matrix on which the sensitivity is performed in addition to the increment type and amount.
This includes these value drivers:
- Sales Growth Rate
- Profit Margin
- Incremental Fixed Capital Investment
- Incremental Working Capital Investment
- Cost of Capital
- Residual Value Cost of Capital
- Tax Rate
- Residual Value Tax Rate
  The default is Sales Growth Rate unless you run Sensitivity Analysis with another value.
- In Change %, enter the percent multiplied or added to the Relative to account.
  You cannot enter negative amounts.
  Examples:
  - If you enter 2% for Sales Growth Rate here and select Multiplying in the Change % field, Strategic Finance multiplies Sales Growth Rate by 98% to obtain the -2% result and multiplies Sales Growth Rate by 102% to obtain the +2%. So, 10% becomes 9.8% and 10.2%.
  - If you enter 2% for Sales Growth Rate here and select Adding in the Change % field, Strategic Finance adds or subtracts 2% to obtain the result. So 10% becomes 8% and 12% growth rate.

6 In And relative to (left), select the left variable of the matrix on which the sensitivity is performed.
The variables are the same as in the Relative (top) text box. Default: Profit Margin.
In Change %, enter the percent increment for the left variable. The rules in the Change % for the top variable field apply.

In Change by, specify how to modify the variable, such as adding the percentage or multiplying the variable by a percentage.

**Setting Economic Profit Options**

Use the Sensitivity Analysis—Economic Profit tab to analyze sensitivity using a subset of value driver variables from the Full Model. Because this is a subset, calculations are faster and Strategic Finance aligns the sensitivity analysis with the Full Model.

To set the shareholder value options:

1. **Access Sensitivity Analysis.**
   
   See “Accessing Sensitivity Analysis” on page 272.

2. **Select Economic Profit.**

3. **In Sensitivity of,** select a variable on which to perform sensitivity analysis:
   
   - Cumulative Present Value of Economic Profit
   - Present Value of Residual Perpetuity
   - Economic Profit Corporate Value
   - Economic Profit Shareholder Value
   - Economic Profit Shareholder Value per Share

4. **In As,** select an option for displaying results:
   
   - Actual Value
     
     Displays Actual calculated values in the current file’s scale.
   - Change In
     
     Displays the change from the current value.
   - Percent Change
     
     Displays the percentage change from the current value.

5. **In Relative to (top),** select the top variable of the matrix on which the sensitivity is performed in addition to the increment type and amount.

   The list includes these value drivers:
   
   - Sales Growth Rate
     
     **Note:** The default is Sales Growth Rate unless you run Sensitivity Analysis using another value.
   - Profit Margin
   - Net Fixed Asset Turnover
- Working Capital Turnover
- Economic Profit RROC
- Long-Term RROC
- Tax Rate
- Residual Value Tax Rate

6 In **Change %**, enter the percent multiplied by or added to the Relative to account.

You cannot enter negative amounts.

: 1%

7 In **And relative to (left)**, select the left variable of the matrix on which the sensitivity is performed.

The variables listed are the same as the Relative (top) field.

Default: Profit Margin

8 In **Change %**, enter the percent increment for the left variable.

The Change % rules for the top variable field apply.

9 In **Change by**, select a method to changing the sensitivity variable is changed:

- **Adding**—Add the percentage to the variable.
- **Multiplying by**—multiply the variable by the percentage.

10 Click **OK**.

## Testing Sensitivity Analysis Results

To test Sensitivity Analysis results:

1 **Access Sensitivity Analysis.**

   See “Accessing Sensitivity Analysis” on page 272.

2 Select the **Full Model, Shareholder Value, or Economic Profit** tabs.

3 Click **Update**.

4 **View results in the matrix:**

   When you enter values and click **Update**, Strategic Finance updates the matrix on the Sensitivity Analysis, showing how the two variables affect the sensitivity of the selected account. You can print or copy and paste from the matrix.

## Using One Variable for Sensitivity Analysis

To analyze sensitivity for one variable, enter the top variable information, and enter 0 (zero) for left variable's percent change. Displays only one row (the middle, horizontal row of numbers) of calculated results.
Using Goal Seek

Subtopics

- Using Goal Seek for Single Periods
- Using Goal Seek for a Time Series

Use Goal Seek to identify a target value for an account. Strategic Finance calculates changes to another account to reach that target. This eliminates manipulating accounts manually.

- “Using Goal Seek for Single Periods” on page 279
- “Using Goal Seek for a Time Series” on page 279

Using Goal Seek for Single Periods

To use Goal Seek for single periods:

1. From any Strategic Finance view, select Analysis, then What if Analysis, and then Goal Seek.
2. Select Single Period.
3. In Set Account, select the goal account.
4. In Period, select a time period.
5. In To Value, enter the target amount.
6. In By Changing Account, select the source account affecting the goal.
   This account must be related to the goal account through a formula. To view account relationships to determine if there is such a formula, see “Using Analyze” on page 87.
7. In In Period and To, enter the years to change the source account.
8. In Adjust By, specify the adjustment method:
   - Same Percentage—adjust the account by the same percentage.
   - Same Amount—adjust the account by the same amount.
9. Click Inputs to enter values.
   See “Entering and Editing Data with Account Input” on page 75.
10. Click Seek.
11. Either use the returned adjustments in your mode or reject the results.

Using Goal Seek for a Time Series

To use Goal Seek for a time series:

1. From any Strategic Finance view, select Analysis, then What if Analysis, and then Goal Seek.
2. Select Time Series.
3 In **Set Account**, select the goal account.

4 In **To Values in Account**, select a source account to contain the goal.
   
   You can use Memo Accounts.

5 In **By Changing Account**, select the source account affecting the goal.
   
   This account must be related to the goal account through a formula. To view account relationships to determine if there is such a formula, see “Using Analyze” on page 87.

6 In **In Period and To**, enter the years to change the source account.

7 Click **Inputs** to enter values.
   
   See “Entering and Editing Data with Account Input” on page 75.

8 Click **Seek**.

9 Either use the returned adjustments in your mode or reject the results.

---

**Using Crystal Ball EPM**

**Subtopics**

- **Requirements**
- **Accessing Models**
- **Viewing Results Files**
- **Viewing Data in Microsoft Excel**

Oracle Crystal Ball Enterprise Performance Management is a suite of Microsoft® Excel-based applications, harnesses and extends the analytical power of spreadsheets. Use them to run Monte Carlo simulations on Strategic Finance financial models. Monte Carlo simulations apply statistical sampling techniques to data, applying random numbers within a defined level of tolerance to simulate unknown business risks. Monte Carlo simulation is available only for implementations using both Strategic Finance and Crystal Ball EPM.

**Note:** For detailed information, see the appropriate guide in the Oracle Crystal Ball documentation suite.

**Requirements**

To use this release of Strategic Finance with Crystal Ball EPM, perform these tasks:

1. Ensure that you have release 11.1.1.0.00 or higher of Crystal Ball EPM.
2. Ensure that you have a valid Crystal Ball EPM license.
3. Ensure that you have a supported version of Microsoft Excel.
4. Ensure that Crystal Ball EPM and Microsoft Excel are on the same computer as the Strategic Finance client.
5. Perform these steps:
a. From a command prompt, access: 
%EPM_ORACLE_HOME%\products\hsf\Client\CoHSF.
b. Enter cohsf /regserver.
c. Access %EPM_ORACLE_HOME%\products\hsf\Client\CoHSF.
d. Enter hsf /regserver.

**Accessing Models**

Only Oracle Crystal Ball Enterprise Performance Management models associated with the current entity are available.

➢ To access Crystal Ball EPM models:

1. Select **Analysis**, then **What if Analysis**, then **Crystal Ball**, and then **Models**
2. In **Models**, select a model and click **Open**.
3. **Optional**: To delete a model, in **Models**, select a model and click **Remove Reference**.

**Viewing Results Files**

Only results files associated with the current entity are available.

➢ To view Crystal Ball EPM results files:

1. From any **Strategic Finance** view, select **Analysis**, then **What if Analysis**, , then **Crystal Ball**, and then **Results Files**.
2. In **Results Files**, select a file and click **Open**.
3. **Optional** To delete a file, in **Results Files**, select a file and then click **Remove Reference**.

**Viewing Data in Microsoft Excel**

To view data in Excel, select **Run/Tools**, then **Strategic Finance Setup**, and then use the wizard to select Strategic Finance entities and accounts for simulations.
Part II

Applying Model Changes and Maintaining Data Integrity and Uniformity

In Applying Model Changes and Maintaining Data Integrity and Uniformity:

- Updating Models Using Entity Change Management
- Standardizing Account Data Using Global Assumptions
- Applying Account Changes Using Assumption Change Management
Updating Models Using Entity Change Management

In This Chapter

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Using ECM in the Strategic Finance Client

About Entity Change Management

Entity Change Manager (ECM) ensures uniformity among entities by controlling bulk metadata changes through one entity. Use ECM to manage:

- accounts
- account groups
- time periods
- scenarios
- reports

Changes you make in ECM documents are, when run, applied to target entities that you define.

To use ECM:

- Create an ECM document in which you:
  - Select a base entity, and multiple target entities
  - Make structural changes to subaccounts or time periods in the base entity
- Run Entity Change Manager to copy your changes to the target entities

Requirements

To use ECM, you must:

- Be connected to the Strategic Finance server
- From the Strategic Finance Administrator, enable ECM on the Strategic Finance server.
Accessing ECM Documents

To access ECM:

1. Select Server and then Entity Change Management.

2. Perform a task:
   - Click Create to define a new ECM document.
   - Select an existing ECM document, and perform any task:
     - Check Out—Checkout and reserve documents. You can also open documents as copies by, in Smart View Shared Connections, expanding Entity Structures, right-clicking, and then selecting Open - Checkout.
     - Open As Copy—Open copies of locked documents. You can also open documents as copies by, in Smart View Shared Connections, expanding Entity Structures, right-clicking, and then selecting Open As Copy.
     - Release Lock—Unlock documents that you locked.
     - Delete—Delete documents.

3. Click Close.

Creating ECM Documents

To create ECM documents:

1. Select Server, select Entity Change Management, and then click Create.

2. In New ECM Document Name, enter a unique name for the document.

3. Select one:
   - Default (empty)—Create an empty document.
   - Copy of ECM Document—Define the document using another document. All attributes are copied except logs, last run date, and owner.

4. Click OK.

Selecting Base Entities

To run Entity Change Manager on an ECM document, select a base entity. Although you can run ECM to create target lists, update links, and export to databases, you must identify a base entity to manage changes to accounts, account groups, time periods, scenarios, or reports.

To select base entities:

1. Select Server and then Entity Change Management.

2. Open an ECM document.
3 Select Edit, and then Choose Base Entity.
4 Enter or browse to identify the entity.
5 To deactivate the tree display, select Show entities flat.
6 Click OK.

Managing Target Entities

Subtopics

- Viewing Target Entities
- Selecting Target Entities
- Deleting Target Entities

Viewing Target Entities

➢ To view target entities belonging to ECM documents:
1 Open an ECM document and check it out.
2 Select Target Files, and sort files using:
   - Target Category—Individual entities, templates, and entity groups.
   - Name—Names of entities, templates, and entity groups.
   - Apply to Children—If changes apply to all children.
3 Click Close.

Selecting Target Entities

➢ To add target entities to ECM documents:
1 Select Server, and then select Entity Change Management.
2 Select an ECM document, and check it out.
3 Select Target Files.
4 Select Edit, and then Add Target Entities.
5 From Selection Method choose how to display and select entities as follows, and then click Add:
   - Exclude Entities by Name—Exclude specific entities that you select. For example, you could use this option to filter the list and manage changes to entities based on a template, but exclude several individual entities from that group. Excluded entities are listed on Target Entities.
   - Select Entities by Source Template—Display only entities associated with a template that you select.
Select Entities by Entity Group—Display only entities associated with a group that you identify.

6. Select Show Entities Flat to deactivate the tree display.

7. Select Apply to Children to copy ECM document changes to children of target entities.

8. Click Close.

Deleting Target Entities

See “Accessing ECM Documents” on page 286.

Managing Account Changes

Subtopics

- Copying Subaccounts
- Copying Account Attributes
- Renumbering Subaccounts
- Deleting Subaccounts
- Deleting Account Changes
- Viewing Accounts Changes
- Copying Account Groups
- Deleting Account Groups
- Viewing Account Group Changes

Copying Subaccounts

When you copy subaccounts, all base entity attributes are added to the target entities.

To copy subaccounts:

1. Select Server and then select Entity Change Management.
2. Open an ECM document.
3. Select Accounts.
4. Select Edit, then Add Account Change, and then Copy Subaccounts.
5. Under Available Accounts, select a subaccount. Use the Shift and Ctrl keys to select multiple accounts.
   Optional: Select an option in Filter Accounts to narrow the accounts that are displayed. For example, to display only input and calc accounts, select All Input or Calc Accounts.
6. Click Add.
7. If the subaccount exists in the target but you wish to overwrite it with new attributes, select Overwrite attributes if account exists.
8. Click OK.
Copying Account Attributes

To copy account attributes:
1. Select Server, and then select Entity Change Management.
2. Open an ECM document.
3. Select Accounts.
4. Select Edit, then Add Account Change, and then Change Account Attributes.
5. Under Available Accounts, select an account. Use the Shift and Ctrl keys to select multiple accounts.
   - Optional: In Available Accounts, select an option in Filter Accounts to filter the accounts that are displayed, such as just exchange rate accounts or input accounts.
6. Click Add.
7. If the subaccount exists in the target but you wish to overwrite it with new attributes, select Overwrite attributes if account exists.
8. In Selected Accounts, select accounts and, under Scenario, select a scenario.
9. From Account Change Options indicate how and what to copy to the target entities:
   - Match Required Element State—Copy the required element state.
   - Rename Accounts—Rename subaccounts in the target entity to match those in the base entity.
   - Forecast Method—Copy the forecast method.
   - Subtotal Method—Copy the subtotal method.
   - Account Note—Copy account notes.
10. Select User-defined Account Change Options, and then specify to copy to target entities:
    - Calculation Method—Copy calculation methods for user-defined accounts. See “UDA Attributes” on page 85.
    - Aggregation Method—Copy just aggregation methods.
    - Output Type—Copy the output type for currency, items, ratios, and percents.
    - Output Units—Copy output units for ones, millions, etc.
11. Optional: Click Select All Attributes to copy all subaccount attributes.
12. Click OK.

Renumbering Subaccounts

To renumber subaccounts:
1. Select Server and then select Entity Change Management.
2. Open an ECM document.
3. Select Accounts.
4 Select Edit, then Add Account Change, and then select Renumber Subaccounts.

5 Under Available Accounts, select an account.
   
   For selecting multiple accounts:
   
   ● Press Shift to select a range.
   
   ● Press Ctrl to select multiple, nonconsecutive items.

   Optional: In Available Accounts, select an option in Filter Accounts to filter the accounts displayed. For example to display only input: and calc accounts, select All Input or Calc Accounts.

6 Click Add.

   Note: If you incorrectly added an account, select it under Selected Accounts, and then click Remove.

7 In Selected Accounts, under Renumber Last 3 Digits from, enter a number from 1-999.
   
   Strategic Finance adds the preceding zeros if you do not enter three digits. For example, if you enter “1”, the entry becomes “001”.

8 Click OK.

Deleting Subaccounts

➢ To delete subaccounts:

1 Select Server, and then Entity Change Management.

2 Open an ECM document.

3 Select Accounts.

4 Select Edit, then Add Account Change, and then select Delete Subaccounts.

5 Under Available Accounts, select an account. Use the Shift and Ctrl keys to select multiple accounts.

   Optional: In Available Accounts, select an option in Filter Accounts to limit the accounts displayed.

6 Optional: In Or Type Account Number, enter an account number and click Add.

7 Click OK.

Deleting Account Changes

➢ To delete account changes:

1 Select Server and then Entity Change Management.

2 Open an ECM document.

3 Select Accounts.
4 Under Account Changes, select an account change.

5 Select Edit, and then Delete.

**Viewing Accounts Changes**

To access a list of all changes made to accounts, open an ECM document, and then select Accounts.

**Copying Account Groups**

To copy account groups:

1 Select Server, and then select Entity Change Management.
2 Open an ECM document.
3 Select Account Groups.
4 Select Edit, then Add Account Group Change, and then select Copy Account Group.
5 From Available Account Groups, select a group. To select multiple groups, press Shift to select a range of groups, or Ctrl to select nonconsecutive groups.
6 Click Add.

**Note:** To remove a group that you incorrectly selected, select it in Selected Account Groups, and then click Remove.

7 In Selected Account Groups, select a group.
8 Optional: Select Overwrite if already exists in Target Entity to overwrite account groups of the same name in the target entity.
9 Optional: In Place new account groups, specify where to place copied groups, such as at the bottom of the list, or below an account group that you select.
10 Click OK.

**Deleting Account Groups**

To delete account groups:

1 Select Server and then select Entity Change Management.
2 Open an ECM document.
3 Select Account Groups.
4 Select Edit, then Add Account Group Change, and then select Delete Account Group.
5 Under Available Account Groups, select a group. Press Shift to select multiple consecutive groups, or press Ctrl to select nonconsecutive groups.
6 Click Add.
7 Click OK.

Viewing Account Group Changes

To view the account group changes:
1 Select Server and then Entity Change Management.
2 Open an ECM document.
3 Select Account Groups for a list of recent changes and information about each change.

Managing Time Period Changes

Subtopics
- Changing Time Structures
- Changing Last Actual Period
- Viewing Time Period Changes

Use the Time tab to bulk manage time period changes.

Changing Time Structures

You can use Entity Change Manager to change the level of time detail in target entities, add or remove years, and set the Base Period and Last Historical Period.

To change time structures:
1 Select Server and then Entity Change Management.
2 Open an ECM document.
3 Select Time.
4 Select Edit, then Add Time Change, and then select Change Time Structure.
5 In Start Year, select a start year that is less than or equal to the first year in the file.
6 In End Year, select a final year that is equal to or greater than the last year in the file.
7 In Required Years, select the years to include.
8 Select the years to include.
9 Select Level of Time Detail in Target options:
   - Keep Target’s Time Detail—If the target includes this year, maintain the same time detail.
   - Get Time Detail from Base Entity—Apply the base entity’s time details such as level (quarters or weeks e.g.), sub-periods, and aggregate periods to the target entity.
   - Choose Time Detail below—Select to specify the time period level in the base entity.
10 From **Calculate Input** select an option:

- **All Scenarios**—Recalculate data for all scenarios given the time detail and structure changes.
- **Current**—Recalculate data for the current scenario given the time detail and structure changes.
- **None**—Do not recalculate.

11 Optional: Specify any of the following:

- **Set Base Period**—Use the same base period in the target and base entities.
- **Set Last Historical Period**—Make the last historical period in the target entity the same as that in the base entity.
- **Add Required Years to Targets if not present**—If the target do not contain all of the Required Years, use to add the selected level of time detail for each year.
- **Delete Years Earlier than Start Year**—Remove years in the target that occur before the Start Year.

12 Click **OK**.

**Changing Last Actual Period**

You can use Entity Change Management to move the Last Actual Period.

1. To change last actual time periods:
   1. Select **Server**, and then **Entity Change Management**.
   2. Open an ECM document.
   3. Select **Time**.
   4. Select **Edit**, then **Add Time Change**, and then select **Move Actual Boundary**.
   5. Select **Use this scenario's data when adjusting actual periods** to use data from a scenario and, in the base entity, select a scenario.
   6. Click **OK**.

**Viewing Time Period Changes**

To view changes that have been made to time periods in ECM documents, open an ECM document and then select **Time**.
Managing Scenario and Combined Scenario Changes

Subtopics

- Copying Scenarios and Combined Scenarios
- Deleting Scenarios and Combined Scenarios
- Copying Scenarios Output

Use the Scenarios tab to perform and manage bulk scenario changes:

Copying Scenarios and Combined Scenarios

To copy scenarios or combined scenarios:

1. Select Server and then Entity Change Management.
2. Open an ECM document.
3. Select Scenarios.
4. Select Edit, then Add Scenario Change, and then Copy Scenario.
5. In Available Scenarios, select a scenario or combined scenario and then click Add.
6. Optional: Select Overwrite if already exists in the Target Entity to overwrite scenarios of matching names in the target entities.
7. Click OK.

Deleting Scenarios and Combined Scenarios

To delete scenarios or combined scenarios:

1. Select Server and then Entity Change Management.
2. Open an ECM document.
3. Select Scenarios.
4. Select Edit, then Add Scenario Change, and then select Delete Scenario.
5. In Available Scenarios, select scenarios or combined scenarios and then click Add.
6. Click OK.

Copying Scenarios Output

To copy scenarios outputs:

1. Select Server and then Entity Change Management.
2. Open an ECM document.
3. Select Scenarios.
4 Select Edits, then Add Scenario Change, and then select Outputs.

5 Select an option:
   - Add All Outputs—Copy outputs.
   - Remove All Outputs—Delete outputs.
   - Copy Outputs from Base Entity—Copy outputs from the base to all target entities.

6 Click OK.

Managing Report Changes

Subtopics
- Copying Reports
- Deleting Reports

Entity Change Manager enables you to manage reports among entities.

Copying Reports

► To copy reports:
1 Select Server, and then Entity Change Management.
2 Open an ECM document.
3 Select Reports.
4 Select Edit, then Add Report Change, and then select Copy Report.
5 Under Available Reports, select a report. Use the Shift and Ctrl keys to select multiple reports.
6 Click Add.

*Note:* If you added a report incorrectly, select it under Selected Reports, and then click Remove.

7 If the report exists in the current target and the base entity version of the report contains new information, select Overwrite if already exists in the target.

8 Optional: Under Place new Report, specify where to place the report in the target:
   - As the First Report—The first, left-most report tab
   - Below this Report—After a selected report
   - As the Last Report—The last, right-most tab

9 Click OK.
Deleting Reports

To delete reports:

1. Open an ECM document.
2. Select Reports.
3. Select Edit, then Add Report Change, and then select Delete Report.
4. Under Available Reports, select the report.
5. Click Add, and then OK.

Previewing and Running Entity Change Management Documents

To preview, refresh, and run ECM documents:

1. Select Server, and then Entity Change Management.
2. Open an ECM document.
4. This run information is displayed:
   - Target Entities—Target entities processed by the latest run.
   - Checked Out By—ID of users who have checked out entities
   - Exclude — Entities not included in the run.
   - Status—The progress of the run such as processing or completed. This column is empty before the first run is performed.
5. Click Entity Change, and then select any option:
   - Preview ECM Targets—List the targets that will be run.
   - Run—Execute the run.
   - Refresh—Update the progress of the run to reflect changes.
   - Stop ECM Run—Cancel the run.

Changing Entity Change Management Run Options

To change run options:

1. Select Server, and then Entity Change Management.
2. Open an ECM document.
3. Select Run, then Entity Change, and then select Options.
4. Select Update HSF Links on Run to update all Strategic Finance links for each target entity.
**Note:** Do not include the base entity as a target.

5. **Select Export** to export configured entities to the relational database.
6. **Select Suppress funds flow messages in log** to exclude funds flow messages from the log.
7. **Click OK.**
Standardizing Account Data
Using Global Assumptions

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About Local Global Assumptions

Subtopics

- Using Local Global Assumptions
- Assigning Global Assumptions to Files
- Setting Global Assumptions for Groups
- Setting Global Assumptions for Accounts
- Setting Global Assumptions Options

Global assumptions standardize account information for local files by making changes in a source file and copying them to target files. Before updating target files, Global Assumptions calculates them. Any errors write to logs in the current directory or windows\temp.

Note: Global User Preferences are for locally-stored Strategic Finance files.

Using Local Global Assumptions

To use Global Assumptions:

1 Select Analysis, then Global Assumptions.
2 Define target files, password, and scenario information.
   See "Assigning Global Assumptions to Files" on page 300.
3 Define groups of target files.
   See “Setting Global Assumptions for Groups” on page 300.
4 Define assumptions accounts.
   See “Setting Global Assumptions for Accounts” on page 301.
Note: Optional: Click Find Accounts to search.

5 Select other options.
   See “Setting Global Assumptions Options” on page 301.

6 Click Run to copy the global assumptions.

7 Click OK.

Assigning Global Assumptions to Files

➤ To set global assumptions:

1 Access Global Assumptions.
   See “Using Local Global Assumptions” on page 299.

2 Select Files.

3 In Target Files, select the files and enter the required information:
   • File Name
     Click a cell to select files in the default directory. Click Browse to search another directory.
   • Password
     For target files with passwords, enter the password.
   • Scenario
     Enter a scenario to update. Not case-sensitive.
   • Last Updated
     The date the target file was last updated.
   • Update
     Select this option to update the file. Use this option to select specific files when rerunning.

4 To re-order files click Up and Down.

5 Click Update All.

Setting Global Assumptions for Groups

➤ To set global assumptions for groups:

1 Access Global Assumptions.
   See “Using Local Global Assumptions” on page 299.

2 Select Group.

3 In Group Name, select a group and click Add.
4 In Target Files, add files to the group:
   
   • File Name
     Click a cell to select files in the default directory. Click Browse to search another directory.
   
   • Password
     For target files with passwords, enter the password.
   
   • Scenario
     Enter a scenario. The current scenario is the default. Not case-sensitive

**Setting Global Assumptions for Accounts**

➤ To set global assumptions for accounts:

1 Access Global Assumptions .
   See “Using Local Global Assumptions ” on page 299.
2 Select Accounts.
3 Optional: In Account(s) to export, select accounts.
4 Optional: Select a Transfer Type:
5 Optional: Select an Order By option and click Refresh:
6 Optional: Click Find Accounts to search.

**Setting Global Assumptions Options**

➤ To set global assumptions options:

1 Access Global Assumptions .
   See “Using Local Global Assumptions ” on page 299.
2 Select Options.
3 Optional: To add subaccounts, select Add subaccounts to target file and an option:
   • User-defined accounts — Export all account attributes and aggregation rules
   • All current other subaccounts and main accounts — Export input and calculated data, historical data, forecast methods, free-form formulas, and account notes.
     o Group and funding option settings are not exported.
     o Main accounts are not added to target files—they must already exist.
     o Account versions in global files are exported.
If a target file main account has data, the data moves to the first subaccount and is not additive.

4 Optional: Use any of these options:
   - Append export status information to existing log to write export status to the log.
   - Calc target file before saving to calculate all target files.
   - Include in log file accounts not found in target file to log accounts that are in the main file, but not in target files
   - Essbase-related export options.

5 Perform an action:
   - Click OK to save the settings.
   - Click Run to export and save the assumptions settings.

Using Server-Side Global Assumptions

Subtopics
- About Importing and Exporting Global Assumptions
- Using Server-Side Assumptions to Link Entities

About Importing and Exporting Global Assumptions

Subtopics
- Exported Data
- Target Files
- Time Periods
- Importing Global Assumptions

Exported Data

Exported data includes:
- Input and calculated values
- Historical data—see “Historical Period Data” on page 303
- Forecast Methods—see “Forecast Data” on page 303
- Account notes for main accounts and subaccounts

Exported data for User Defined Accounts includes:
- All account attributes—output type, output units, aggregation rules
- Subaccounts
- Account notes
Exported data overrides:

Hotlinks—"Hotlinked Data" on page 303

**Forecast Data**

Strategic Finance does not ensure that accounts used in forecast methods exist in target files. Missing accounts cause errors.

**Hotlinked Data**

For hotlinked data in target files, Strategic Finance overrides the links for updated accounts, changing the cell color from blue to red and logging the broken link.

**Historical Period Data**

If you select the Export historical data option on the Global Assumptions Options tab, historical period data is exported.

**Target Files**

Strategic Finance stores, in each target file, the file name, password (displayed as asterisks, '*'), and date/time stamp of the source global assumptions file.

You can export global assumptions labelled under different versions or editions. Global Assumptions exports information to the same account numbers even if they have different names.

Strategic Finance logs warnings when exporting assumptions across editions.

**Time Periods**

Global Assumptions handles the global and target file time periods as follows:

- If the highest level of detail used in the global file is months, target files can be in months, quarters, or years.
- If the highest level of detail used in the source file is quarters, target files can be in quarters or years. When the global file has more detail than target files, the yearly amounts in the global file are calculated aggregate amounts. Global Assumptions handles this:
  - If the global file is calculated, Global Assumptions exports output values as currency overrides, because the global file contains no inputs corresponding to target file time periods. This ensures the correct output.
  - If the global file is not calculated, Strategic Finance logs an error.
- If the highest level of detail in the source file is years, target files can only be in years.
- The fiscal year end of the target and source files must match.
- Number of days in the subperiods of the target and source files must match.
The historical/forecast boundary of the target and source files must match.

If the source file has more periods than the target file, the extra periods in the source file are ignored.

**Importing Global Assumptions**

Strategic Finance imports global assumptions data if:

- The source data changed since the last global assumptions update.
- The source file has a more recent date/time stamp than the target file.

**Note:** The import process synchronizes source and target files if the export process fails. For example, if the network is down during an export, the database is not updated, and the import process imports global assumptions.

**Using Server-Side Assumptions to Link Entities**

You can pull data from one entity to another using HSF Files.

1. To use HSF Files to link entities:
2. Open the target entity.
3. Select File then Import and then From HSF File.
4. Select Source Entities.
5. Click Add to add a source entity.
6. In Take Source data from, enter a source scenario.
7. In Put Source Data In, enter the target scenario to populate with the pulled data.
8. Select a Input/Output Settings option.
9. From Historical/Forecast Settings, indicate if you want to use just historical or both historical and forecast data.
10. Select Accounts.
11. In Source File, select the source entity.
12. In Accounts, select the source account.
13. Select an Input/Output Settings option to specify the kind of source entity values to use, such as default or input.
14. Click OK.

**Note:** Use Import Source Entity Data to import linked data.
Applying Account Changes
Using Assumption Change Management

In This Chapter

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Using ACM in Strategic Finance

Subtopics

- About Assumptions Change Manager
- Working with ACM Documents
- Viewing, Selecting, and Deleting Target Entities
- Managing Account Attribute Changes
- Previewing and Running ACM Documents

About Assumptions Change Manager

Assumptions Change Manager maintains account information. You select one base entity as the source for all account information, and you select multiple target entities that receive copies of that account information. This is particularly useful to help you ensure uniformity between financial models.

Create Assumptions Change Manager (ACM) documents to define a base entity, or the source of the changes, and the target entities, which receive the changes—and to define the account attribute changes copied from the source to the targets. ACM documents store this information for future use. Unlike Entity Change Manager, you run Assumptions Change Manager only one time per change.
Working with ACM Documents

Subtopics
- Accessing ACM Documents
- Creating ACM Documents
- Selecting Base Entities
- Accessing Summary Information

Create Assumptions Change Manager (ACM) documents to define a base entity, or the source of the changes, and the target entities, which receive the changes—and to define the account attribute changes copied from the source to the targets. ACM documents store this information for future use. Unlike Entity Change Manager, you run Assumptions Change Manager only one time per change.

Accessing ACM Documents

➢ To access ACM documents:

1. Select Server, then Assumptions Change Manager.

   Assumptions Change Manager lists:
   - Server—The current Strategic Finance server
   - Database—The current Strategic Finance database
   - ACM Documents—A lists available ACM documents:
     - Name—The name identifying the ACM document.
     - Checked Out By—Any users currently accessing documents.
     - Last Run—The dates documents were last performed.

2. Perform an action:
   - To create ACM documents, click Create.
   - To open ACM documents for editing or running, select one and click Check Out.
   - To open ACM document copies checked out by other users, select one and click Open as Copy.
   - To free ACM documents currently checked out, select one and click Release Lock.
   - To delete ACM documents, select one and click Delete.

3. Click Close.

Creating ACM Documents

➢ To create ACM documents:

1. Select Server, then Assumptions Change Manager, and then click Create.
2  In New ACM Document Name, enter a name.
   The name must be unique among ACM documents within the current server and database.

3  Select an option:
   •  Default (empty) — Create an empty ACM document.
   •  Copy of ACM Document — Browse to an ACM document upon which to base the document.

4  Click OK.
   You can now check out the ACM document.

Selecting Base Entities
A base entity is the source for all account changes. Changes to base entities are copied to target entities when ACM documents are run.

➤ To select base entities:
   1  Open an ACM document.
   2  Select Edit, then Choose Base Entity.
       Choose Base Entity displays.
   3  In Base Entity, enter or browse to an entity.
   4  Click OK.

Accessing Summary Information

➤ To view ACM summary data:
   1  Click File, then Summary Information.
      •  Name — The ACM document name.
      •  Owner — The ACM document owner.
      •  Last Updated — The date the ACM document was last changed.
      •  Last Run — The date the document was last run.
   2  Click OK.
Viewing, Selecting, and Deleting Target Entities

Subtopics

- Viewing Target Entities
- Selecting Target Entities
- Deleting Target Entities

Target entities receive changes from a base entity when ACM documents are run.

Viewing Target Entities

➢ To view target entities, click **Target Files**:

Target Files lists these per target:

- **Name**—The name of the entity or entity group.

  **Note:** If you use **Exclude Entities by Name** entities excluded from the ACM document display. Unlisted entities are targets.

- **Apply to Children**—Changes are also made to children of the selected entities.

Selecting Target Entities

Perform these steps to identify the target entities to update with changes from the base entity.

➢ To select target entities:

1. Open an ACM document.
2. Select **Target Files**.
3. Select **Edit**, then **Add Target Entity**.
4. Under **Selection Method**, select an option:
   - **Select Entities by Name**—Display all entities.
   - **Exclude Entities by Name**—Target all entities except those shown here.
   - **Select Entities by Source Template**—Target all entities that use the selected template.
   - **Select Entities by Entity Group**—Target an entity group.
5. Under **Select one or many and click Add**, select entities, templates, or Entity Groups:
   - Press Shift to select a range.
   - Press Ctrl to select multiple, nonconsecutive items.
6. Click **Add**.
7. Select **Show Entities Flat** to list all entities.
8. Optional: Select **Apply to Children** if children of the selected entities should also be targets.
Click Close.

Deleting Target Entities

To delete target entities:
1. Open an ACM document.
2. Select Target Files.
3. Under Name, select an entity.
4. Select Edit, then Delete.

Managing Account Attribute Changes

Subtopics
- Adding Assumptions Account Attributes
- Editing Account Attributes

Use Assumptions Change Manager to copy account attributes between entities.

Adding Assumptions Account Attributes

To add assumptions account attributes:
1. Open an ACM document.
   See “Using ACM in Smart View” on page 311.
2. Select Edit, then Add Assumptions Accounts.
3. Optional: To specify which accounts are listed in Available Accounts, from Filter Accounts, select an account group.
4. In Available Accounts, select an account.
   - Press Shift to select a range.
   - Press Ctrl to select multiple, nonconsecutive items.
5. Click Add.
   The account is listed in Selected Accounts.

Note: If you add a report that does not belong, select it under Selected Accounts and click Remove.

6. Optional: Select source scenarios under Scenario and Account.
   Use Scenario to specify source and target scenarios.
7. Under Transfer Type, select value types:

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Editing Account Attributes

To edit account attributes:

1. Open an ACM document.
   See “Using ACM in Smart View” on page 311.

2. Select Accounts.

3. Select an account.
   - Press Shift to select a range.
   - Press Ctrl to select multiple, nonconsecutive items.

4. Select Edit twice.

5. Under Transfer Type, select the value type:
   - Input Values—Copies account input values. Default.
   - Output Values—Copies account output values.

6. Under Time Periods for Assumptions, select time period types:
   - History Periods—Copies historical periods.

7. Click OK.

Previewing and Running ACM Documents

Subtopics

- Running ACM Documents
- Changing Assumptions Change Manager Run Options

Running ACM documents copies changes made to base entities to the targets.
Running ACM Documents

1. Open an ACM document.
   See “Using ACM in Smart View” on page 311.

2. Select Run.

3. Review Run information:
   - Target Entities—Entities included in the ACM document.
   - Checked Out by—Any users currently accessing documents are unavailable for the run.
   - Exclude—Select this option within a target entity row to exclude the entity from the current run.
   - Status—The status of the current run per entity:
     - Completed—Copied successfully.
     - Processing—Currently copying.
     - Failed—Copy unsuccessful; rerun recommended.

4. Optional: Click a column header to sort by the column.

5. Optional: To preview ACM document runs, select Assumptions Change, then Preview ACM Targets.

6. To run ACM changes, select Assumptions Change, then Run.

Changing Assumptions Change Manager Run Options

1. Open an ACM document.
   See “Using ACM in Smart View” on page 311.

2. Select Run.

3. Select Assumptions Change, then Options.

4. Select Run Options:
   - Run only failed targets—To rerun only failed entities.
   - Export—To export to relational databases, after the run, entities define for export.
   - Supress funds flow message in log—Does not write funds flow messages to the log. Recommended to prevent the log from using up too much disk space. Default.

5. Click OK.

Using ACM in Smart View
Part III

Displaying Financial Data Using Reports and Graphs

In Displaying Financial Data Using Reports and Graphs:

- Using Provided and Freestyle Reports
- Working with Graphs
About Reporting

You evaluate financial models using standard reports like income statements, balance sheets, and funds flow statements. You can create custom reports to meet other needs. Reports display through different tabs on the workspace, or through the menu bar.

Strategic Finance provides these report categories:

- Financial and Valuation reports on financial data
- The Notes Report for annotating analyses
- 5 custom reports
- Freestyle Reports for more flexible custom reports
- The Linked and Embedded Objects report for embedding graphics

On standard reports, you can display reports in different formats, review account notes, use Analyze to review account values, and change input assumptions to see how it changes your analysis. You change the report display by inserting or deleting accounts or rows and columns, and changing stylistic elements like fonts and number formats. There are features adding flexibility when printing reports.
By default, reports display account values as currencies—but, you can select alternative value formats. When reviewing reports, you can annotate an analysis, for example, to note how account values are calculated. Or, use Analyze to see how a value is calculated from constituent accounts, and how each affects the input data. You can change input assumptions on reports.

### Changing Report Formats

**Note:** This procedure does not apply to freestyle reports.

To change report formats:

1. Select **Reports**, then **Standard Reports**, and then **Report Formats**.
2. On **Alternate Formats**, select formats:
   - **None**
     - Default—Displays values in currency format.
   - **Currency and Growth Rate**
     - Displays values in growth rates from the prior period. Growth rates for periods under a year are based on the same time period length from the prior period, even if the prior period is a year. For example, if 2004 is modeled in quarters and 2003 as a year, the growth rate for 1st quarter 2004 is based on 4th quarter 2003. The value for 4th quarter 2003 is based on actual number of days.
   - **Currency and Common Size**
     - Displays values in a common-size (percentage) format. This alternative format is only available for the Income Statement, Balance Sheet and Cash Flow Statement. Common-size values are calculated for the Income Statement and Cash Flow Statement based on Sales (v1000) and the Balance Sheet based on Total Assets (v2490).
   - **Currency and Growth Rate Over Same Period One Year Ago**
     - Displays values in growth rates from the same period in the prior year. Growth rates for periods under a year are based on the same time period length from the same period in the prior year. For example, if 2004 is modeled in quarters and 2003 as a year, the growth
rate for 1st quarter 2004 is calculated based on the 1st quarter 2003. The value for 1st quarter 2003 is based on actual number of days.

- **Current and Named Scenario**
  Displays values for the current scenario and a second scenario select in the Scenarios list. You have options for displaying variances between the two scenarios:
  - **Currency**
    The currency difference.
  - **Percent**
    The percentage difference.
  - **Both Currency and Percent**
    The difference in both currency and percent.
  - **None**
    Displays accounts only—no variance columns.

3 Optional: Select **Suppress Zero Values** to display only accounts containing non-zero values.
   Default—Reports hide accounts with zero values.

4 Optional: Select **Apply to All Reports** to apply the format to all reports.
   Without this option, only the currently selected report is modified.

5 Click **OK**.

### Modifying Report Properties

- To review or change report properties:
  1 Select a report.
  2 Select Reports, then Properties or double-click the report tab.
  3 Optional: In **Report Name**, enter a name.
     Maximum: 20 characters
  4 Optional: In **Tab Short-name**, enter a short name for the report tab.
  5 Optional: In **Common Size Variable**, select an account.
    Displays all accounts as percentages of this account. You must set the report to display using the Currency and Common Size format—see “Changing Report Formats” on page 316.

  **Note:** Does not apply to Freestyle Reports.

Click Find Account to browse.

6 Click **OK**.
Working With Report Notes

You can view note attachments as follows:

- On reports - notes display at the bottom of financial statements
- Using the Notes Report - displays all account notes in a model
- “Accessing Notes Reports” on page 318
- “Adding or Reviewing Notes” on page 318

Accessing Notes Reports

To access the Notes Report:

1. Select View, then Reports, and then More Reports.
2. In Report(s) to view, select Notes Report.
3. Click OK.

Adding or Reviewing Notes

To add or review report notes:

1. Select a report.
2. Select an account in the report.
3. Select Accounts, then Account Notes.
4. Optional: To change accounts, select an account from the list.

Tip: To scroll through accounts, click Next and Prev.

5. Optional: In Notes, enter comments for the account.
6. Optional: Select Display on reports to display Notes comments at the bottom of the report.
7. Optional: Select Show only accounts with notes to display only accounts with comments attached in the account list on Account Note.
8. Optional: To delete the comment, click Clear.
9. When you finish, click Exit.

Changing Input Assumptions

In reports, you can change input assumptions to evaluate changes in your model.

- “Editing Input Account Values” on page 319
- “Editing Input Account Values” on page 319
Editing Input Account Values

To edit values using Input:
1. Highlight an account and click the input box.
2. Enter a value and press Enter.
3. Recalculate the model.

Editing Input Account Values

To edit account values using Account Input:
1. Select Accounts, then Account Input.
2. On Account Input, select an account.
3. In the historical and forecast rows, enter changes.
4. Click exit.
5. Recalculate the model.

Displaying or Concealing Reports

Hide reports that do not pertain to financial models.

To conceal reports:
1. Select Reports, then Hide/Unhide.
2. Clear reports to hide.
3. Click OK.

Loading Default Reports

To load or reload default reports:
1. Access a report.
2. Select Reports, then Standard Reports, and then Load Default Reports.
3. Optional: To load a report from a local file:
   a. On Choose Default Report File, click Load Set to search and select the reports file (*.dls).
   b. On Choose Default Report File, click OK.
4. To load the report file or reload an default report, in Available Reports, select a report.
5. Click Load.
Customizing Reports

Subtopics

- Changing Global Settings
- Inserting Accounts in Reports
- Changing Number Formats Across Reports
- Customizing Standard and Freestyle Report Formats

There are global and individual settings for reports. For individual reports, you can insert or delete accounts, rows, or columns. You can change number formats, fonts, rows, and column settings and alignment.

Changing Global Settings

You change global settings for reports on the User Preferences—Report tab.

To change global report settings:

1. Select Analysis, then User Preferences.
2. Select Report.
3. Optional: Select Show Frame for AccountRows.
   - On (default)—Displays the vertical frame of reports, with account numbers.
   - Off—Hides the vertical frame, allowing more onscreen space for data.
   - On (default)—Displays the horizontal frame of reports, with time period labels.
   - Off—Hides the horizontal frame, allowing more onscreen space for data.
5. Optional: Select Print File Information to show filenames and last calculation time/date of the model in all reports.
   - On—Displays the information.
   - Off (default)—Hides the information.
6. Optional: Select Skip Custom Reports on DRS Load to preserve the formats of Custom Reports 1-5, even if reloading default reports.
7. Optional: In Characters per Note Line, specify the maximum number of characters for account notes. Between 10 and 255.
8. Optional: Select Insert subaccounts with main accounts to automatically include subaccounts in reports when inserting main accounts.
9. Optional: Select Insert dimensional block to automatically include the full dimensional block in reports when inserting main accounts.
10. Optional: Select the Show Frame for Rows to display border frames on Freestyle Reports.
**Note:** Freestyle Reports only.

11 **Optional:** Select the Show Frame for Columns to display column frames in Freestyle Reports.

**Note:** Freestyle Reports only.

12 Click OK.

## Inserting Accounts in Reports

**Note:** You can copy and paste accounts from one report to another using the Copy and Paste commands.

To insert accounts into reports:

1. Highlight one account to locate the account.
2. Select Edit, then Insert, and then Account.
3. On Insert Accounts, select an accounts and click Add.

To add multiple accounts, repeat.

4. **Optional:** Select Expand Subaccounts to include all subaccounts when inserting main account.
5. **Optional:** Select Expand Dimensions to include all dimensions when inserting dimensional accounts.
6. **Optional:** Select Change Sign to reverse the +/- sign of accounts.
   - If you insert a main or dimensional account and expand the account and select this option, the sign applies to the expanded block of data.
   - To revert to the default sign, deselect this option.
7. **Optional:** In Accounts to Insert, reorder the accounts.
   This defines the display order of accounts in reports. To change the order, select accounts and click Up or Down.
8. Click Insert.

## Changing Number Formats Across Reports

To change numeric formats for report categories:

1. Select a report.
2. Select Format, then Default Number Formats
3. On Default Number Formats, select a numeric format:
4. **Currency with Symbol:** Displays numeric data as currency, preceded by a currency symbol. To enter an ASCII character for foreign currency symbols, press Alt and enter the ASCII character, for example: Alt-156 for £ or Alt-157 for ¥.
Currency without Symbol

Displays numeric data as currency without a currency symbol.

Items, Days, Turns

Like Currency without Symbol, but applies to user defined accounts (Memo Accounts, Ratios and Covenants) that could display an output in a format other than currency such as items (quantity), days (A/R days) or turns (Inventory).

Percentages

Displays numeric data in percentage format, followed by a percent sign.

Ratios

Same as Items, Days, Turns.

5 Click Change.
6 In Format Cells, select a numeric format.
7 Click OK.

Customizing Standard and Freestyle Report Formats

You can customize report to mirror financial statements. You can hide, reveal, or delete columns and rows. You can insert accounts, account notes, and text, and make cosmetic changes to fonts, borders, and other report elements—see Chapter 22, “Formatting.”

Printing Reports

Strategic Finance offers these additional print options:

- “Printing Multiple Reports” on page 322
- “Suppressing Accounts and Time Periods in Reports” on page 322

Printing Multiple Reports

To print multiple reports:

1 Select File, then Print Multiple.
2 On Print Multiple Reports, select multiple reports to print.
3 Click Print.

Suppressing Accounts and Time Periods in Reports

You can specify which time periods to display in the Time Periods view. See “Concealing Time Periods in Reports” on page 124 for instructions.
Using Freestyle Reports

Freestyle Reporting is a flexible reporting tool for financial statements and variance analyses, offering these benefits:

- Creating calculations directly on the Freestyle Report.
- Building fully customized reports, including specialized layouts for time structure or table creation.
- Dynamic reporting through the use of the base period feature.
- Automatic linking of data from the Account spreadsheet.
- Fully functional Analyze trail.

Building Freestyle Reports

Subtopics

- Creating Blank Freestyle Reports
- Inputting Data
- Creating Formulas in Cells

To build a Freestyle Report, you create a blank one first.

See “Creating Blank Freestyle Reports” on page 323.

With blank Freestyle Reports, there are three ways to enter data:

- Entering data directly by typing or pasting the data from another source. See “Inputting Data” on page 324.
- Creating formulas referencing other cells in the report or other reports. See “Creating Formulas in Cells” on page 324.
- Linking accounts by assigning cell attributes.
  See “Linking Data to Freestyle Reports by Assigning Cell Attributes” on page 324.

Creating Blank Freestyle Reports

There are two ways to create an empty Freestyle Report.

To create Freestyle Reports:

1. Select a report.
2. Select Edit, then Insert, and then Sheet.

To create Freestyle Reports from existing reports:

1. Select a Freestyle Report.
2 Select Insert, then Worksheet.

Note: Change Freestyle Report names by opening one and selecting Report, then Properties.

Inputting Data
To input data into a Freestyle Report, click a cell and enter a value. To paste data from another source, highlight the cell or range of cells in the report, select Edit, and then Paste.

Creating Formulas in Cells
You create formulas in cells. Formulas are stored until deleted from cells. To reference cells in calculations, click a cell following a mathematical operator (for example, +).

Linking Data to Freestyle Reports by Assigning Cell Attributes
To create links between the Freestyle Reports and the financial model accounts, highlight a cell or range of cells (individual cell, row, or column) and assign cell attributes. Each cell must be assigned all five available attributes for information to appear:

- Entity
- Data Object
- Account Attributes
- Time
- Scenario

See “Viewing Cell Properties” on page 326 for information on viewing attributes.

When attributes conflict in overlapping rows and columns, Strategic Finance follows the levels of influence to determine which attribute to use.

See “Levels of Influence for Resolution of Cell Assignment Conflicts” on page 327.

Note: Columns and rows must intersect before the information displays. For example, if you assign columns for the years 2003, 2004, and 2005, no information appears until you assign a row of accounts below those columns.

To assign cell attributes:
1 Select a Freestyle Report.
2 Highlight a cell, row, or column.
3 Select Edit, and then Assign Cell Attributes.

4 Under Entity, select a data source:
   - None—Paste in copied data, or enter data.
   - Current—Retrieve data from the current financial model
   - Alias—Link data from another entity or file (.alc). The source file or entity must have an alias. See “Using Alias Manager” on page 328

   Note: When linking calculated data through Alias, you can use Analyze to view the analyze trail from the source.

5 Under Data Object, define the object from the source to display in the cell:
   - In Account, select an account.
     The available accounts are from the source in Entity. You must select an option in Other.
     - Click Find Accounts to search accounts.
     - For Debt Scheduler items, in Account, select one of the debt accounts:
       - New Senior Notes (v2652)
       - New Senior Subordinated Notes (v2654)
       - Total Long Term Debt (v2660)
   - In Other, select elements to display as report titles, column and row headings, default currency and units, or scenario descriptions:

6 Under Account Attributes, select the account data to display:
   - Input
     Displays input values or forecast assumptions accounts.
   - Output
     Displays output values.
   - Label
     Displays account names.
   - Note
     Displays account notes.
   - None
     Default—Displays nothing.
   - Change Sign
     Displays opposite values from the account data.

7 Under Time, enter the time periods to retrieve:
   - Interpret relative time references based on
     Specify the source financial model for time information:
- **Current**
  From the current entity.

- **Alias**
  From a linked entity. Requires an alias—see “Using Alias Manager” on page 328

- **In Time Period**, enter a time period or formula.
  Click **Build** to enter a time formula—see “Building Time Formulas” on page 338.

- **In Options**, select a roll-up time period:
  - `<None>`
  - **YTD**
    Year to Date
  - **HTD**
    Half to Date
  - **QTD**
    Quarter to Date

8 **Optional:** Under **Scenario**, select a scenario.

**Note:** To activate this feature, access **Scenario Manager - Account Scenarios** and, in **Accounts** select the account
see “Maintaining Scenarios” on page 268.

9 Click **Apply**.

**Viewing Cell Properties**

Use **Cell Properties** to view cell assignments.

See “Levels of Influence for Resolution of Cell Assignment Conflicts” on page 327.

- **To access cell properties:**
  1 **Select a cell, row, or column.**
  2 Right-click and select **Cell Properties**.
  3 View the properties:
    - **Current Cell**
      
      Current cell assignments take precedence over default assignments:
      - **Account**
      - **Other Information**
      - **Account Attribute**
      - **Flip Sign**
- Time Period
- Scenario
- Entity

**Note:** Each of these parameter is select on Assign Cell Attributes—see “Linking Data to Freestyle Reports by Assigning Cell Attributes” on page 324.

- Defaults

  The default assignments are at the row, column, or sheet level, and applied to all cells without assignments. See Current Cell for the parameter list.

**Levels of Influence for Resolution of Cell Assignment Conflicts**

Cells, rows, and columns can all be assigned cell attributes. If these attributes overlap, they may conflict. These levels of influence resolve conflicts:

1. Cell
2. Row
3. Column
4. Sheet

For instance, if row 3 is Sales and column B is Inventory, a conflict exists at cell B3. The levels of influence give rows priority over columns—so cell B3 displays Sales.

**Cutting and Pasting Debt Schedules in Freestyle Reports**

To copy and paste Debt Schedules into Freestyle Reports, select only the top-left corner cell of the cells to copy, select Edit, and then Copy.

**Creating Charts**

After populating Freestyle Reports with data, you can create charts with that information. You can customize charts—see Chapter 20, “Working with Graphs”.

- To create charts:
  1. In a report, select the a range of cells, rows, and columns—include headings.
  2. From Excel Insert menu, and then select Chart.
### Protecting Freestyle Reports

In Freestyle Reports, you can protect the spreadsheet. By default, all cells are locked in protected reports. Before locking a report, you can indicate cells to leave open for editing.

- To unlock cells and protect Freestyle reports:
  1. Select a Freestyle Report.
  2. Select **File**, then **File Management**, and then **Access Control**.
  3. Select **Reports**.
  4. Select the **Can Protect** column in the row a Freestyle Report.
  5. Click **OK**
  6. Highlight a cell or range of cells.
  7. Select **Format**, then **Cells**.
  8. Select **Protection**.
  9. Deselect **Locked** and click **OK**.
  10. Select **Format**, then **Sheet**, and then **Protection**.

### Using Alias Manager

Use **Alias Manager** to create aliases for entities, used when linking external entities to Freestyle Reports.

- To create aliases using **Alias Manager**:
  1. Select **Reports**, then **Freestyle Reports**, and then **Alias Manager**.
  2. Specify the location:
     - Use Entity from Server ("Entity")
       For server entities.
     - Use local file ("Filename")
       For local files.
  3. Review aliases information:
     - Alias: The alias name.
     - File Name/Entity
       A multimode column listing alias sources:
       - File Name
         For local files, this lists the filepath and referenced file.
- **Entity**
  For server implementations, this lists the referenced entity.

- **Password / Archive**
  A multimode column:
  - **Password**
    For password-protected files, enter the password.
  - **Archive**
    For aliases referencing archived entities, this lists the archive.

- **Count**
  The number of times the alias is currently cited in all Freestyle Reports.

- **Calc**
  The current status of the referenced entity or file:
  - **Calc**
    Values need recalculating.
  - **Ready**
    Values are calculated.

- **Status**
  The current description of the entity or file:
  - **Open**
    Someone is accessing the entity.
  - **Changed**
    The entity needs recalculating.
  - **Current**
    The entity is calculated and closed.

- **Label**
  If an entity is in a labelled consolidation, this lists the label.

4 **Optional:** To create aliases, click New.

5 Click OK.

**Creating Aliases**

- **To create aliases:**
  1 On **Alias Manager**, click New.
  2 In Alias, enter a name for the alias.
3 **Optional:** Alias a server entity:
  - In **Entity**, enter an entity.
  - **Optional:** To alias currency-translated entity versions, select **Translation**.
  - **Optional:** To alias an archive of the entity, in **Archive**, enter an archive name.

4 **Optional:** To create aliases to local files:
  - In **File Name**, enter the filepath and filename.
  - **Optional:** In **Password (for local file)**, enter the password if the file is password protected. See the section called “Password—Protecting Files”.
    - **Optional:** To store passwords and avoid prompting when aliases are used, select **Save password in alias**.

5 **Click OK.**
Using Graphs

Subtopics

- Viewing Basic Data
- Configuring Graphs
- Graphing Accounts
- Selecting Time Periods
- Importing Graph Data

To access graphs, select Report, then View, or press (F10).

Viewing Basic Data

To use basic data:

1. Access Graph.
   
   See “Using Graphs” on page 331.

2. To create a graph, enter the name in Graph Name, and click Add.

   Note: The name displayed in the Available list is not the title of the graph. The graph title is entered in the Configure tab.

3. From Available, select a graph.

4. Optional: To modify items displayed in the View tab, perform an action:
   
   - To change the graph name, in Available, select the graph, enter a name, and click the checkmark.
   
   - To revert to the previous name (after you rename a graph), click the X.
To delete a graph, select it, and click **Delete.**

Optional: To import data from another Strategic Finance file into the selected graph, in **Graph Data,** click **Import,** and select the file.

**Note:** Only data that falls within the analysis time period is imported.

Optional: To specify the time of the next data update for the selected graph, deselect **Automatically Update,** click **Data Update,** and then define an update time.

Click **Apply.**

Click **Close.**

---

### Configuring Graphs

To configure graphs:

1. **Access Graph.**
   
   See “Using Graphs” on page 331.

2. **In View,** select a graph, and select **Configure.**
   
   The graph name appears in the Current Graph to Configure field of the Configure tab.

3. **Select options:**
   - **Automatically Update**—applies the most recent changes made to the graph
   - **Show Scenario**—display the scenario
   - **Show Legend**—identify the graph components
   - **Show Title**—display the graph title.
   - **Show X-Axis Title**—display the title on the X axis.
   - **Show Y-Axis Title**—display the title on the Y axis

4. **In Chart Type,** select a graph type.

   Optional: You can select other options regarding graph type:

   - To stack data, select **Stacked Data.**
   - To express data as a percentage, rather than a value, select **% Axis.**

5. **Optional: To modify the graph,** perform one or more actions:
   - To resize the graph, enlarge or reduce the size of the graph window.
   - To rotate the graph, press **Ctrl,** and, when the cursor changes, use the mouse to rotate the graph.

6. **Click Apply,** and view the graph.

7. **Click Close.**
Graphing Accounts

To use the Accounts tab:
1. Access Graph—see “Using Graphs” on page 331.
2. On View, select a graph and configure.
3. Select Accounts.
4. In Select Account(s) to Filter, select the account group to graph.
5. In Select Account(s) to Graph, double-click the accounts to graph.
6. Click Apply, and view the graph.
7. Click Close.

Selecting Time Periods

The Time tab enables you to select the time periods to graph.

To use select the time periods to graph:
1. From a Strategic Finance view, select Reports, then Graph.
2. Select Time.
3. In Available Time Period(s) to Graph, select the years for which to display data in the graph.
   You can add time periods to or delete time periods from the Available Time Period(s) to Graph list.
4. Click Apply, and view the graph.
5. Click Close.

Importing Graph Data

To use imported data in graphs:
1. From a Strategic Finance view, select Reports, then Graph.
2. Select Import for Graph Data.
3. Select the data to import.
4. Click Apply.
5. Click Close.
Creating Graphs From Standard Reports

Using the Microsoft Office user interface Ribbon, you can create a basic chart by clicking on the chart type that you want.

➢ To create graphs from standard reports:

1. Within a standard report, select a range of cells, including the row and column headings.
2. On the Insert tab, and then select Charts group, and then select the chart type.

Creating Graphs From Freestyle Reports

You can create a graphs from freestyle report data.

➢ To create graphs from freestyle reports:

1. Within a freestyle report, select a range of cells, including the row and column headings.
2. From Excel Insert menu, and then select Chart.

Strategic Finance produces a graph based on the data.
Using Freeform Formulas

In This Chapter

Overview ........................................................................................................ 335
Building Formulas .................................................................................... 337
Functions Used in Formulas ........................................................................ 339

Overview

Subtopics

● Values
● Mathematical and Boolean Operators
● Functions Referencing Account Time Periods

Use the Formula Builder to create freeform formulas to calculate the historical and/or forecast values of input accounts.

Formulas contain:

● Values, that are constants or account numbers
● Mathematical Operators
● Boolean Operators, such as =,=,< >,#OR#
● Account References and Functions to reference periods, account values or percentages

Formulas calculate from left to right. To calculate expressions first, enclose them in parentheses.

Values

To enter a number, enter the number. For example, enter “10” is literally 10.

To enter an account, enter a “v” with the account number immediately following. Case-insensitive. For example, “V1040.00.000” and “v1040.00.000” refer to the same account.
# Mathematical and Boolean Operators

<table>
<thead>
<tr>
<th>Operation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Adds</td>
</tr>
<tr>
<td>-</td>
<td>Subtracts</td>
</tr>
<tr>
<td>*</td>
<td>Multiplies</td>
</tr>
<tr>
<td>/</td>
<td>Divides</td>
</tr>
<tr>
<td>^</td>
<td>Exponentiation</td>
</tr>
</tbody>
</table>

Use after IF statements:

<table>
<thead>
<tr>
<th>Operation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;</td>
<td>Greater than</td>
</tr>
<tr>
<td>&lt;</td>
<td>Less than</td>
</tr>
<tr>
<td>&gt;=</td>
<td>Greater than or equal to</td>
</tr>
<tr>
<td>&lt;=</td>
<td>Less than or equal to</td>
</tr>
<tr>
<td>=</td>
<td>Equal</td>
</tr>
<tr>
<td>&lt;&gt;</td>
<td>Not equal</td>
</tr>
<tr>
<td>#AND#</td>
<td>Bitwise and</td>
</tr>
<tr>
<td>#OR#</td>
<td>Bitwise or</td>
</tr>
</tbody>
</table>

# Functions Referencing Account Time Periods

Use the following to reference account time periods:

- `vxxxx(argument)` — Retrieves account values from another time period. Use absolute or relative period references.

- Absolute periods by specifying the account and then a period in quotes, or a function in brackets. Examples:

<table>
<thead>
<tr>
<th>Example</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>v1030 ( Jan 03 )</td>
<td>Sales in January 2003</td>
</tr>
<tr>
<td>v1030 ( @firstpd )</td>
<td>Sales in the first period</td>
</tr>
</tbody>
</table>

- Relative periods using lead and lag periods. Lead periods follow the current period; lag periods precede the current period.

Unspecified period types become the current period. Examples:
<table>
<thead>
<tr>
<th>Example</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>v1030(-1M)</td>
<td>Lag one month of Sales</td>
</tr>
<tr>
<td>v1030(+3M)</td>
<td>Lead three months of Sales</td>
</tr>
<tr>
<td>v1030(-4Q)</td>
<td>Lag four quarters of Sales</td>
</tr>
<tr>
<td>v1030(+2Q)</td>
<td>Lead two quarters of Sales</td>
</tr>
<tr>
<td>v1030(-1Y)</td>
<td>Lag one year of Sales</td>
</tr>
<tr>
<td>v1030(+3Y)</td>
<td>Lag three years of Sales</td>
</tr>
<tr>
<td>v1030(-1)</td>
<td>Lag one of the current period type of Sales</td>
</tr>
<tr>
<td>v1030(+2M)</td>
<td>Lead two months of Sales</td>
</tr>
</tbody>
</table>

**Functions For Relative Time Period References**

These functions convert time levels. Conversion occurs before other operations:

**Table 12  Typecasting in Relative Time Period References**

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
<th>Returns</th>
<th>Syntax</th>
</tr>
</thead>
<tbody>
<tr>
<td>@week</td>
<td>Converts to a week</td>
<td>Week</td>
<td>v350.0.001 (-2(@week))</td>
</tr>
<tr>
<td>@month</td>
<td>Converts to a month</td>
<td>Month</td>
<td>-v350.0.21 (+2q(@month)) - @input</td>
</tr>
<tr>
<td>@qrt</td>
<td>Converts to a quarter</td>
<td>Quarter</td>
<td>v350.000.05(-4y(@qtr))</td>
</tr>
<tr>
<td>@half</td>
<td>Six months</td>
<td>Half year</td>
<td>v350.0.001 (-3(@half))</td>
</tr>
<tr>
<td>@year</td>
<td>Year</td>
<td>Year</td>
<td>v350.0.18(-18m(@year))</td>
</tr>
</tbody>
</table>

**Building Formulas**

- “Adding Accounts” on page 338
- “Inserting Functions” on page 338
- “Building Time Formulas” on page 338

**Creating Formulas Using Formula Builder**

1. To use Formula Builder:
   1. From any view, click **Forecast Method**.
   2. Select **Freeform**, and then click **Build**.
   3. In **Formula**, add accounts and functions, and insert operations. See:
Adding Accounts

To enter accounts:
1. From any view, click Forecast Method.
2. Select Freeform, and then click Build.
4. In Formulas, enter accounts.
   - Filter by account group by selecting a group from Filter.
   - Specify a Match Type option:
     - Contains—Filter accounts by name
     - Starts with—Filter accounts by first letter of name
5. Double click to select accounts.
6. Click OK.

Inserting Functions

To build functions into formulas:
1. From any view, click Forecast Method.
2. Select Freeform, and then click Build.
3. In Names, select a function.
   - See “Functions Used in Formulas” on page 339.
4. In Names, double-click a function.
5. In Examples, double-click an example to build your formula using the sample syntax.
6. Click Formula to enter functions.
7. Click OK.

Building Time Formulas

Use Build Time Formula to define formulas to reference time periods. For example, to reference data for the current and next year, use @basepd:

@basepd(+1(@year))
Note: Use **Time Period** to change the base period. See “Defining, Deleting, and Displaying Time Periods” on page 119.

To build time formulas:

1. **From a freestyle report, access Build Time Formula.**
   See “Linking Data to Freestyle Reports by Assigning Cell Attributes” on page 324.

2. **In Formula, create time formulas by inserting operators and double-clicking functions.** See:
   - “@firstpd” on page 345.
   - “@lasthist, vXXXX(@lasthist)” on page 346.
   - “@isfirstfore” on page 352
   - “@lastfore, vXXXX(@lastfore)” on page 345
   - “@closing” on page 344
   - “@deal” on page 344.
   - “@opening” on page 346.
   - “@basepd” on page 344.

3. **Optional: Select Show User Labels to display user-defined time periods.**
   See “Changing Time Period Labels” on page 122.

4. **Click OK.**

### Functions Used in Formulas

Subtopics
- Functions That Retrieve Values
- Functions That Reference Specific Time Periods
- Functions That Retrieve Time Period Information
- Functions That Modify the Retrieval of an Account Value
- Functions That Operate on Expressions
- Special Functions

### Functions That Retrieve Values

These functions have no arguments:
- “@na” on page 340
- “@nummonths” on page 341
- “@numweeks” on page 341
- “@LIKEPD” on page 342
- “@dimexact(vXXXX,”dimension member”)” on page 342
@na

Definition
Not a number.
For use as a general fill value or for non-logical results.

Returns
N/A

Example
If a ratio is relevant only in forecasted periods due, use @na for other periods. For example:
@if(@ishist, @na, v1400/ v2890)
where Total Interest Expense is v1400 and Total Liabilities is v2890.

Note: N/A* X = N/A and N/A+ X = X

@LOG

Definition
Computes the base-10 logarithm of the argument. This enables you to represent very high values using a smaller frame of reference. For example, LOG is used to assess seismic activity such as earthquakes.

Example
LOG(value, base))
For example, LOG(4, 100,000)) = 0.12
For example, LOG10(86) =1.93449

@LN

Definition
Computes the natural logarithm of the argument
@nummonths

Definition
Number of months in a period

Returns
- The number of months in a time period.
- N/A for time structures based on weeks.

Example
- In a quarter, this returns the number of months in the quarter.
- In a half year, this returns 6.
- In a year, this returns 12.

@numweeks

Definition
Number of weeks in a period

Returns
The number of weeks in a period.

Example
- In a month, this returns the number of weeks in the month, or a value of 4 or 5.
- In a quarter, this returns 12 or 13.
- In a half year, this returns 26 or 27.
- In a year, this returns 52 or 53.

@numweeks

Definition
Number of weeks in a period

Returns
The number of weeks in a period.

Example
- In a month, this returns the number of weeks in the month, or a value of 4 or 5.
- In a quarter, this returns 12 or 13.
In a half year, this returns 26 or 27.
In a year, this returns 52 or 53.

**@LIKEPD**

**Definition**
Use to specify a lead or lag time to a period-to-date of the same type. This function enables you to create formulas where you want the period-to-date periods to lag a full period instead of using the value from the previous period.

**Example**
Assume you define a formula using Oct09:YTD in which the value (V1000) from the previous year, 2008, is used V1000(-1). To use a value other than the 2008 period-to-date result, use V1000(@likepd(-1)).

**@dimexact(vXXXX,"dimension member")**

**Definition**
References dimensional account instances from accounts that do not share the same dimensions as the account with the formula, enabling you to reference dimensions not currently assigned to the account with the function.

**Returns**
Returns a dimensional instance.

**Example**
If Sales has the dimension Region but not Product, and Cost of Goods sold has the dimension Product but not Region, the Cost of Goods Sold account can use this formula:

```
@dimexact(v1000,"North")*.1
```

to retrieve the instance for Sales/North and multiply it by 10%.

**@scalar**

**Caution!** Do not use arguments to retrieve values from other accounts with @scalar. This functionality may be deprecated in a future release.

**Definition**
Returns a scalar value from the forecast method.
If you use @scalar in a Freeform Formula forecast method, the account accepts one scalar input value in all forecast periods.

Returns
Returns the value of the single forecast input for a variable when that forecast method is in use.

@calc( PROCESS, Vxxxx )

Definition
A general method of calling a complex calculation routine.

Returns
- True—if the calculation succeeds.
- False—if the calculation fails.

@ipvalue( PROCESS, Vxxxx )

An instruction to the calculation engine indicating there are intra-period values stored for this account, by some process, that should be retrieved and, in the case of Flows, summed to return the reporting value for the account for the period.

@debt( Vxxxx, TOKEN_NAME )

Returns values directly from the debt schedule for use in formulas and reporting. Other than trivial internal calculations, this performs no calculations.

@sub(Vxxxx.xx)

Similar to @dim in that, using no arguments, it references the same subaccount number as the variable being calculated. Useful when calculating subaccounted formulas, as with some Debt Scheduler variables.

Functions That Reference Specific Time Periods
These functions return time period information into the current time period from different periods. None of these functions have arguments.

- “@basepd” on page 344
- “@closing” on page 344
- “@deal” on page 344
- “@firstfore” on page 345
- “@firstpd” on page 345
@basepd

Definition
Base period

Returns
A relative time reference that returns the value for an account in the base period—see “Defining, Deleting, and Displaying Time Periods” on page 119.

Example
If 2007 is the base period, this equation: v1000(@basepd)
returns the value of Sales (v1000) for 2007.

@closing

Definition
Closing period

Returns
A relative time reference that returns the value for the closing period of an account.

Example
This formula: v1000(@closing)
returns the closing period value for Sales (v1000).

@deal

Definition
Deal period

Returns
A relative time reference that returns the value for the deal period of an account.
Example
This formula: v2005(@deal)
returns the deal period value for Cash Used in Transaction (v2005).

@firstfore

Definition
First forecasted period

A relative time reference that returns the first forecasted time period value for an account—see “Defining, Deleting, and Displaying Time Periods” on page 119.

Example
To return the first forecasted period output value for Sales, if the last historical value (e.g. 1999) of sales is 10 and a 10% growth rate in all following periods:

v1000(@firstfore)
The value returned is 11 (10* 1.1) or 2000’s sales.

@firstpd

Definition
First period

Returns
A relative time reference that returns the first period in the model's value for an account.

Example
If 2007 is the first period in the model, the formula:

v1000(@firstpd)
return the value for 2007 Sales (v1000). If 2007 is in quarters, Strategic Finance returns the first quarter for 2007 Sales (v1000).

@lastfore, vXXXX(@lastfore)

Definition
References the last forecasted value of an account.

Returns
- The value of an account in the last forecasted period.
• N/A for other periods.

Example
For this formula and values:
\[ v1000(@lastfore) \]

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>10</td>
<td>15</td>
<td>16.5</td>
<td>18.15</td>
<td>19.96</td>
<td>21.96</td>
<td>24.15</td>
</tr>
</tbody>
</table>

The formula returns 24.158 in 2004 and N/A in other periods.

@lasthist, vXXXX(@lasthist)

Definition
References the value of an account that is in the last historical period.

Returns
• The value in the last historical period.
• N/A for all periods up to the last historical period.

Example
For this formula and values:
\[ v1000(@lasthist) \]

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>10</td>
<td>15</td>
<td>16.5</td>
<td>18.15</td>
<td>19.96</td>
<td>21.96</td>
<td>24.15</td>
</tr>
</tbody>
</table>

The formula returns and N/A in 1998, a 15.000 in 1999 and remaining periods.

@opening

Definition
Opening period

Returns
A relative time reference that retrieves the value for an account in the opening period. The opening period is the aggregate of the closing and deal periods. For example, for a deal period in Mar99, Strategic Finance creates the accounts Mar99:Closing and Mar99:Deal, which aggregate to Mar99. Mar99 is the opening period.
Example
The formula: v2000(@opening)
returns the opening period value of Cash (v2000).

@lastactual
Definition
Last actual value.
Returns
A reference to the last actual period.

@lastpd
Definition
Last time period.
Returns
A reference to the last time period.

Functions That Retrieve Time Period Information
These functions accept optional arguments to specify absolute or relative period references. Without arguments, they return the value for the current period.

- “@halfnum” on page 348
- “@inputpd([Time period reference])” on page 349
- “@isagg” on page 350
- “@isclosing” on page 350
- “@isdeal” on page 351
- “@iseoy” on page 351
- “@isfirstpd” on page 351
- “@isfirstfore” on page 352
- “@isfore” on page 353
- “@ishalf” on page 353
- “@ishist” on page 354
- “@isinput” on page 354
- “@islastfore” on page 355
@halfnum

**Definition**

Half period number
Used to trigger @if statements by making the condition equal to the first or second part of the year.

**Returns**

- 1—first half
- 2—second half

**Example**

If a company accumulates taxes for the first half of the year and pays taxes second half, this formula could be entered in a Taxes Payable account:

```
@if(@halfnum=1, @sum(v1690, @ytd), 0)
```

with Total Taxes (v1690).

---

**@inputpd( [Time period reference])**

**Definition**

Input period

This function is useful when using an optional time period reference, usually a lead or lag, although absolute period references are possible.

**Returns**

Returns the input period driving the value for the period being calculated. This may be the period that is being calculated, if it is an input period.

**Example**

For example:

```
@inputpd(-1)
```

You can reference the preceding input period, even if that period is a different type from the current period, which enables returning some types of lagged data.

This formula:

```
@Vxxxx(-1)
```

returns the value of Vxxxx from the previous period of the same type.

This formula:

```
@Vxxxx(@inputpd(-1))
```

returns the value of Vxxxx from the preceding input period.
@isagg

Definition
Is an aggregate period
A relative reference in @if statements. Used with memo accounts, ratio accounts, and covenant accounts in time period structures that yield aggregate periods.

For example, if a model is in quarterly detail a year end aggregate period is created. The same applies to months, half years, and subperiods. Used in @if statements, different calculations can be performed in these aggregate periods.

Returns

- True—if the period is an aggregate period
- False—if not

Example
If a model is in quarters and the year end is an aggregate period, this formula:

@if(@isagg, 1, 2)

returns 2 in each of the four quarters and 1 in the year end aggregate.

Note: This function only works when one of the User Defined Accounts is a calculated (CALC) field and the None option is selected.

See “Using User-Defined Accounts” on page 89.

@isclosing

Definition
Is the closing period in the model
A relative reference in @if statements.

Returns

- True—if the period is the closing period in the model
- False—if not

Example
This formula:

@if(@isclosing, 1, 2)

returns 1 in the closing period, 2 for other periods.
@isdeal

Definition
Is the deal period
A relative reference in @if statements.

Returns
- True—if the period is the closing period in the model
- False—if not

Example
This formula:
@if(@isdeal, 1, 2)
returns 1 in the closing period, and 2 for other periods.

@iseoy

Definition
Is the end of the year
A relative reference in @if statements used for models in months, quarters, or half years. This function models year end payments of accrued liabilities. Causes no problems in yearly detail.

Returns
- True—if the period is at the end of the fiscal year
- False—if not

Example
If the model is in quarters and December is the fiscal year end, this formula:
@if(@iseoy, 1, 2)
returns 2 in the first three quarters and 1 in the fourth quarter.

@isfirstpd

Definition
Is first period
A relative reference in @if statements.
Returns

- True—if the period is the first period in the model
- False—if not

Example 1

If the first quarter of 1998 is the first period in the model, this formula:

@if(@isfirstpd, 1, 2)

returns 1 for 1Q98, and 2 for other periods.

Example 2

If you delete 1998, the formula in the previous example returns 1 in the first period of 1999, and 2 in subsequent periods.

@isfirstfore

Definition

Is the first forecasted period in the model

A relative reference in @if statements, enabling you to change the historical/forecast boundary and maintain the integrity of the formula. Forecast periods are determined by the historical/forecast boundary set in “Defining, Deleting, and Displaying Time Periods” on page 119.

Returns

- True—if the period is the first forecasted period in the model
- False—if not

Example 1

If a model is in years and the historical/forecast boundary is 2007/2008, with 2008 as the forecast period, this formula:

@if(@isfirstfore, 1, 2)

returns 1 for 2000, and 2 for other periods.

Example 2

The same formula in the previous example, but with a model in quarters with the first quarter of 2008 as the first forecast period, returns 1 for the first quarter of 2008, and 2 for other periods.
@isfore

Definition
Is a forecasted period.
A relative reference in @if statements.

Forecast periods are determined by the historical/forecast boundary set in “Defining, Deleting, and Displaying Time Periods” on page 119.

Returns
● True—if the period is a forecasted period
● False—if not

Example
If a model contains 6 years starting in 2006, with the first year historical, then the remaining years, 2007–2011, are forecast. This formula:
@if(@isfore, 1, 2)
returns 1 for 2006, and 2 for the other years.

@isfirstforeyr

Definition
Is first forecast year.
Accepts a time period reference as an argument.

Returns
● True—If this period is contained in the first forecast year, or the first year is, even partially, in the forecast period.
● False—If not.

@ishalf

Definition
Is a half year
A relative reference in @if statements.

You can divide a year into quarters, enabling aggregate half year periods, or divide a year into halves, which would not make these aggregate periods. Time period detail is determined in “Defining, Deleting, and Displaying Time Periods” on page 119.
**Returns**

- True—if the period is a half-year period whether or not it is an aggregate period
- False—if not

**Example**

If a model has 2006 in years and 2007 in half years, this formula:
\[ \text{@if}(@ishalf, 1, 2) \]

---

**@ishist**

**Definition**

Is a historical period
A relative reference in @if statements.

Historical periods are determined by the historical/forecast boundary set in “Defining, Deleting, and Displaying Time Periods” on page 119.

**Returns**

- True—if the period is a historical
- False—if not

**Example**

If a model contains 6 years starting in 2006 and the first year if historical, then 2007–2012 are forecast. This formula:
\[ \text{@if}(@ishist, 1, 2) \]
returns 1 in the 2006, and 2 in the other years.

---

**@isinput**

**Definition**

Is an input period
A relative reference in @if statements.

Use in time period structures containing aggregate or year-end periods: months, quarters, halves.
Use this function with accounts convertible into calculated accounts: memo accounts, ratio accounts, and covenant accounts.

**Returns**

- True—if the period is an input period
False—if not

Example
If 2006 is in quarters with an aggregate year end, this formula:
@if(@isinput, 1, 2)
returns 1 for each quarter of 2006, and 2 in the year end 2006.

@islastfore

Definition
Is the last forecast period
A relative reference in @if statements.

Returns
- True—if the period is the last forecasted period in the model
- False—if not

Example
If a model contains 6 years ending in 2011, and 2007–2011 are forecast, this formula:
@if(@islastfore, 1, 2)
returns 1 in 2011 (the last forecasted period), and a 2 in the other years.

@islasthist

Definition
Is the last historical period
A relative reference in @if statements.
Forecast periods are determined by the historical/forecast boundary set in “Defining, Deleting, and Displaying Time Periods” on page 119.

Returns
- True—if the period is the last historical period in the model
- False—if not

Example
If a model contains 6 years starting in 2005, with 2006 as the last historical period, then the 2007–2010 are forecast. This formula:
@if(@islasthist, 1, 2)
return 1 in 2006, and 2 in all other years.

**@ismonth**

Definition
Is a monthly period
A relative reference in @if statements.
Time period detail is set in “Defining, Deleting, and Displaying Time Periods” on page 119.

Returns
- True—if the period is in months
- False—if not

Example
If 2006 is in years and 2007 is in months, this formula:
\[@if(@ismonth, 1, 2)\]

**@isopening**

Definition
Is the opening period in the model
A relative reference in @if statements.
The opening period is the aggregate of the closing and deal periods.
For example, if you create a deal period in Mar08, Strategic Finance creates the accounts Mar08:Closing and Mar08:Deal, which aggregate to Mar08. Mar08 is the opening period.

Returns
- True—if the period is the opening period in the model
- False—if not

**@isqtr**

Definition
Is a quarter
A relative reference in @if statements.
Returns
- True—if the period is in quarters
- False—if not

Example
If 2007 is in years and 2008 is in quarters, this formula:
\[ @if(@isqtr, 1, 2) \]
returns 2 in 2007, and a 1 for each quarter in 2008.

If this function was built using “Using User-Defined Accounts” on page 89, the 2008 year end aggregate period returns a 2.

@issub

Definition
Is a subperiod
A relative time reference in \[ @if \] statements.
The opening period is the aggregate of the closing and deal periods.

Returns
- True—if the period is subperiod with zero days
- False—if not

Example
If 2007 is in years and 2008 is comprised of two subperiods, one of 365 days and another of zero days, this formula:
\[ @if(@issub, 1, 2) \]
returns 2 for 2007, and, for 2008, 1 for the 365 day and 1 in the restatement or zero-day period.
If this function was built using “Using User-Defined Accounts” on page 89, the 2008 aggregate period returns a 2.

@isweek

Definition
Is a week
A relative time reference in \[ @if \] statements.
Time period detail is set in “Defining, Deleting, and Displaying Time Periods” on page 119.
Returns

- True—if the period is in weekly detail
- False—if not

Example

If 2007 is in months and 2008 is in weeks, this formula:

@if(@isweek, 1, 2)


@isyyear

Definition

Is a year

A relative time reference in @if statements.

Returns

- True—if the period is a year or yearend
- False—if not

Example

If 2007 is in years and 2008 is in quarters, this formula:

@if(@isyyear, 1, 2)

returns 1 in 2007, and 2 for each quarter in 2008.

If this function was built using “Using User-Defined Accounts” on page 89 with the None option, the 2008 year-end aggregate period returns 1.

@monthnum

Definition

The month fiscal number

Use @monthnum in @if statements to model one-time-a-year occurrences. Strategic Finance numbers months from 1 to 12 beginning with the first month of the fiscal year. For example, the function is used if a liability were paid out on a month.

Returns

The number of the month: between 1 and 12.
Example
If income Taxes Payable is v2530, Total Taxes is v1690, and September is month number 9, this formula:
@if(@monthnum= 9, v1690, v2530(-1m)+v1690)
aggregates all taxes in v2530 until September, pays taxes by decreasing the balance to 0, and starts accumulating current-period taxes.

@period
Definition
Period number, starting from the first forecasted time period
This function counts the aggregates and input columns. The last historical time column is number 0, and each column number following increases by 1.

Returns
● True—if the period number equals a number input in @if
● False—if not

Example
This formula:
@if(@period= 2, 1, 2)
exectues (result: 1) after the formula reaches the second forecasted time column.

@pdexists
Definition
Period exists
Executes commands if a period exists.

Returns
● True—if the period exists
● False—if not

Example
For the Sales (v1000) account:
@if(@pdexists(-3),v1000(-3),@na)
Embedded in a larger formula, this formula ensures that Sales from the 3 previous periods enters the equation. If there are no Sales figures for those periods, it returns N/A.
**@pdlen**

**Definition**

Period length

Time period detail is set in “Defining, Deleting, and Displaying Time Periods” on page 119.

**Returns**

Returns the number days in a period.

**Example**

This formula calculates interest expense:

\[
\frac{@pdlen}{@yearlen} \times v2520 \times 9\%
\]

Where Notes Payable (v2520) has a 9% annual rate. This takes the number of days in the period, divides by the number of days in the year, multiplies the debt balance, and multiplies by 9% to get to a periodic interest expense.

**@pdnum**

**Definition**

Period number, starting from the first time column

Totals the aggregates and inputs. The first time column is number 0.

**Returns**

The number of time columns in the model since the first period.

- True—if the period number equals the number enter in @if
- False—if not

**Example**

\[
@if(@pdnum= 2, 1, 2)
\]

This executes (result: 1) after the formula reaches the third time column in the model.

**@qtrnum**

**Definition**

Quarter number

**Returns**

A relative time reference in @if statements.
Example
@if(@qtrnum=3,v1080(-1Q),v1000*@input)

In the third quarter, this formula takes the value of second quarter Selling, General & Administration Expense (v1080). In the first, second, and fourth quarters, the formula takes an input percentage (@input) times Sales (v1000).

@since( period reference ), @after

Definition
Adds durations to functions such as @sum.

@since includes starting periods. Accepts absolute period references such as @firstfore or May03, but rejects relative period references such as -1Y.

@after does not include starting periods.

Example
@sum( Vyyyy, @since( @issuepd( Vxxxx )))
Sums all flows occurring after the debt was issued.

@weeknum

Definition
The week fiscal number

Used in @if statements to model one-time-a-year occurrences.

Strategic Finance numbers the weeks from 1 to 52 (or 53) beginning with the first week of the fiscal year. For example, use this function if a dividend were paid out in a week.

Returns
The fiscal week number, between 1 and 53.

Example
For Common Dividend (v1880) and Weighted Average Common Shares Outstanding (v3410):
@if(@weeknum=37,v3410*.65,0)

returns a Common Dividend corresponding to 65 cents per common share in the 37th week of each year and 0 in all other weeks.
@yearlen

Definition
Year Length

Returns
The number of days in the year, as defined in “Defining, Deleting, and Displaying Time Periods” on page 119.

Example
This formula returns the value of Sales (v1000) in annual periods:
@if(@isyear,v1000,v1000/@pdlen*@yearlen)
In non-year periods, it annualizes Sales by dividing by the period length and multiplying by the number of days in the year.

@yearnum

Definition
Year number
A relative time reference in @if statements.

Returns
The year number.

Example
@if(@yearnum=2001,v1080(-1y),v1000*@input)
In 2001, the formula returns the value of 2000 Selling, General & Administration Expense (v1080). In other forecast years, the formula return an input percentage (@input) times Sales (v1000).

@firstday

Definition
The first day of the time period

Returns
The day number for the first day of the period.
@lastday

Definition
The last day of the time period

Returns
The day number for the last day of the period. For calendar time, this is the number of days since December 30, 1899. For non-calendar time periods, the value is adjusted for the length of the year (360 or 364 days).

@iscalc

Definition
Is a calculated number

Returns
- True—if the time period contains calculated values
- False—if not

@isleaf

Definition
Is an entity with no child entities

Returns
- True—if the time period has no child periods
- False—if not

Example
In a year containing only months, the year returns false and months return true.

@isptd

Definition
Is period-to-date

Returns
- True—if the time period is a period-to-date
- False—if not
@istrailing

Definition
Is a trailing period

Returns
- True—if the time period is a trailing period
- False—if not

@islastactual

Definition
Is the last actual value

Returns
- True—if the time period is the last actual period
- False—if not

@islastperiod

Definition
Is the last time period

Returns
- True—if the time period is the last period
- False—if not

@blocknum

Definition
A block of time periods defined by month or week numbers

Returns
- For models in months, the month number in the year, 1 to 12.
- For models in weeks, the week number in the year, 1 to 53.
@issuepd( Vxxxx, [optional period reference])

Definition
Issue period

Returns
- If Vxxxx contains a debt schedule, returns the period in which the debt was issued.
- Otherwise, returns an invalid period reference.

@isissuepd( Vxxxx, [optional period reference])

Definition
Is issue period

Returns
- True—if Vxxxx contains a debt schedule and the current period, or optional reference, is when the debt was issued
- False—if not

Use the optional period reference to change the test period. For example:
@isissuepd( Vxxxx, -1 )

test if the prior period was the issue period.

@isinterm( Vxxxx, [optional period reference])

Definition
Is in the term—Debt Scheduler only

Use the optional period reference to check another period if the first is within the term. A period is within the term of the debt if the debt is issued, exists, or is extinguished during that period.

Returns
- True—if Vxxxx has a debt schedule and the current period is within the term.
- False—if Vxxxx has no debt schedule, or the current period is not within the term.
Functions That Modify the Retrieval of an Account Value

Subtopics

- @abs(vXXXX)
- @annualize(vXXXX)
- @avg(vXXXX, -t)
- @ceil(vXXXX)
- @chg(vXXXX, -t)
- @floor(vXXXX)
- @histavg or @histavg(vXXXX)
- @input or @input(vXXXX)
- @irr(vXXXX(t), vXXXX(t), [%])
- @normalize
- @prior(vXXXX)
- @sum(vXXXX, -t)
- @ytd

For these functions, the first argument is an account reference, unless otherwise indicated. Arguments in [ ] are optional.

@abs(vXXXX)

Definition
Absolute value

Returns
The absolute value of a specified account.

Example
@abs(v1750)

Where Net Income equals v1750 and is -10, this returns 10.

@annualize(vXXXX)

Definition
Annualize a value

Use when working in months, quarters, or half years. The calculation uses the number of days in the year and the number of days in that period to calculate an annualized value.

Returns
Returns the annualized value of the account.
Example

@annualize(v1150)

Where Operating Profit equals v1150 and is 15 in the third quarter of 2000. This calculates as:

\[ 15 \times \left( \frac{\text{# of days in year}}{\text{# of days in period}} \right) \]

or

\[ 15 \times \frac{366}{92} = 59.674. \]

@avg(vXXX, -t)

Definition

Averages a value over “t” periods

The “t” variable can be a month, quarter, or half year. Strategic Finance calculates values for periods with insufficient detail.

Returns

Returns a rolling average of an account for the precious “t” periods.

Example

@avg(v1040, -3q)

Where Cost of Goods Sold (v1040) is:

<table>
<thead>
<tr>
<th>v1040</th>
<th>1998</th>
<th>1999</th>
<th>1Q00</th>
<th>2Q00</th>
<th>3Q00</th>
<th>4Q00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of Goods Sold</td>
<td>15</td>
<td>20</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

The calculation in 2Q00:

\[ \frac{5 + 4 + (20 \times (\text{# of days in 4Q99})/(\text{# of days in 1999}))}{3} \]

The result: 5.68

The calculation in 3Q00:

\[ (4 + 5 + 6)/3 \text{ or } 5. \]

@ceil(vXXX)

Definition

Rounds a value up to the next integer number

Returns

Returns the next highest integer number (e.g. 2, 10, 65, 149...) based on the result of the parenthesized variable or equation.
Example
Where Inventory (v2040) is 233, this formula:
@ceil(v2040/100)
calculates the number of trucks necessary to haul the inventory, assuming each truck carries 100
worth of inventory in a period. This example equates to 2.33 and the function rounds result up
to 3.

@chg(vXXXX,-t)
Definition
Calculates the change
Returns
Returns the change in the variable over t periods.
Example
@chg (v1040, -1q)
Where Cost of Goods Sold (v1040) is:

<table>
<thead>
<tr>
<th>v1040</th>
<th>1998</th>
<th>1999</th>
<th>1Q00</th>
<th>2Q00</th>
<th>3Q00</th>
<th>4Q00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of Goods Sold</td>
<td>15</td>
<td>20</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

In the second quarter of 2000 the equation returns:
1, (5- 4)

@floor(vXXXX)
Definition
Rounds a value down to the next integer number
Returns
Returns the next lower integer number (e.g. 2, 10, 65, 149...) based on the result of the
parenthesized variable or equation.
Example
If Sales are 20.23, 34.45:
@floor (v1000)
calculates the values 20 and 34.
@histavg or @histavg(vXXXX)

Definition
Historical forecasting average

If a Freeform Formula forecast method contains @histavg, no input is required in the forecast period. On the Accounts view, when the cursor is on the referenced account, the Hist. Avg. text box displays the historical average.

The years in the calculation of the historical average are defined in “Defining, Deleting, and Displaying Time Periods” on page 119.

Returns
The historical average based on the forecasting method used in the account.

Example 1
The basic formula:
@histavg

Example 2
If Sales (v1000) in 2006 and 2007 are 10 and 12, and the forecasting method of sales is as an actual dollar value, this formula:
@histavg(v1000)
returns 11.

Example 3
If example 2 uses a growth rate forecasting method, Strategic Finance calculates the historical average at 20%—the growth rate needed to get from 10 to 12.

@input or @input(vXXXX)

Caution!
Do not use arguments to retrieve values from other accounts, as this option is deprecated.

Definition
Uses an input in the formula
Enables users to input a number and reference that input in a formula.

Returns
The input function works in conjunction with the Input as and Units text boxes.
See “Entering Forecast Methods as Freeform Formulas” on page 107.
Example 1
When calculating dividends, Net Income from the first forecasted time period can be used as a base. Net Income is multiplied by a percentage input in each period.

For example:
@input* v1750(@firstfore)

By default, the Input as is Currency. Change it to Percentage for this formula.

Example 2
For Cost of Goods Sold (v1040):
@input(v1040)

returns the input of v1040 regardless of the account containing the formula. If Cost of Goods Sold is 75% of Sales, Strategic Finance returns 75% instead of the Cost of Goods Sold output.

@irr(vXXXX(t),vXXXX(t), [%])

Definition
Internal Rate of Return (IRR)
- The first variable is the account in which the initial cash outlay exists at in a period.
- The second variable is the cash stream beginning in a period.
- The percentage is an optional guess at the IRR.

Returns
The internal rate of return of a stream of cash flows.

Example
A project with an initial invest in 2000 and a cash flow beginning in 2000, uses this formula:
@irr(v300(1999), v4100(2000))

if the initial investment exists in v300 of 1999. The cash stream comes from the cash flow of Operations (v4100) beginning in 2000.

@normalize

Definition
Normalize a value
Calculates a normalized value from the number of days in the current period and a prior period. For comparing consecutive time periods of various lengths.
Returns
The normalized value of an account across consecutive time periods.

Example
@normalize(v1150(-1))

If Operating Profit (v1150) is $8,515 in 2006, 2007 calculates as:
(v1150(-1)*# of days in current period)/(# of days in prior period) or (8515*366)/365 = 8538.

@prior(vXXXX)

Definition
Prior period account

Returns
References the prior period’s account balance.

Example
@prior(v1040)

references the prior period balance for Cost of Goods Sold (v1040).

@sum(vXXXX, -t)

Definition
Summation

Returns
This is a rolling summation function. You must enter an account number and the number of periods to sum.

Example
@sum(v1040, -3M)

sums Cost of Goods Sold (v1040) over the last three months.

@ytd

Definition
Year to Date
References year-to-date time periods.

Returns
A summation of values from the beginning of a year to the present.

Example
If a three-year model, 2004-2006, is in quarters:
@avg(v1040(-2Q), @ytd)

averages the year-to-date Cost of Goods Sold value from the prior two quarters. In the first quarter of 2006, the sums 1Q2000, 2Q2000, and 3Q2000, and divides by three.

Functions That Operate on Expressions
These functions can take any expression as an argument:

- “@depr(vXXXX,"schedule") or @depr(vXXXX,“schedule”, period retirement is in, % of initial investment retired)” on page 372
- “@if(T/F Test Condition, Execute if True, Execute if False)” on page 374
- “@isna(expression)” on page 376
- “@max(val.,val.)” on page 376
- “@min(val.,val.)” on page 377
- “@not(condition or formula)” on page 377

@depr(vXXXX,"schedule") or @depr(vXXXX,“schedule”, period retirement is in, % of initial investment retired)

Definition
Depreciation

Returns
Calculates depreciation or removes retirements from depreciation expense.

Enables forecasting depreciation against a capital expenditures stream. The basic formula:
@depr (CAPX* stream, * schedule)

where CAPX stream is the depreciating capital expenditure account and schedule is the schedule name defined in the following section Using Debt Scheduler. Enter this formula in v2190.1 or a memo account and the function output is the depreciation for that period's asset.

When depreciating CAPX streams, @depr lags backward. The depreciation in 2003 for a five-year asset is:

- 2003’s CAPX times the first year rate
plus 2002’s CAPX times the second year rate
plus 2001’s CAPX times the third year rate, etc.

If a year has no CAPX or the year does not exist, Strategic Finance multiplies zero by a rate.

Because Strategic Finance applies the same rate to all a variable’s CAPXs, each asset class should have a CAPX stream. For example, use separate subaccounts of v2170.1 for five-year and ten-year properties.

When depreciating assets for financial and tax reporting purposes, you can use the same CAPX stream, but different schedules and output accounts.

- “Interim Periods” on page 373
- “Retirements” on page 373
- “Purpose 1: Depreciation” on page 374
- “Purpose 2: Removing Retirements” on page 374

**Interim Periods**

If you enter assets per quarter, month, or half-year, @depr calculates the annual depreciation for the asset, displaying the amount in the quarter. To calculate each interim period likewise, create schedules.

In years after the year placed in service, Strategic Finance calculates annual depreciation for that asset and allocates to interim periods based on days.

**Retirements**

To record a retirement, this function records depreciation:

@DEPR(v2170.03, "schedule", 3, 50)

- v2170.3 (Gross Retirements) is the retirements on assets
- “schedule” is the schedule containing the depreciation rate (e.g. “5 year SL”)
- (3) is the current year in the schedule (in a half-year convention, five-year properties depreciate in six years). Must be a positive integer.
- (50) is the depreciation percentage not recognized in the retirement year. Must be between (0) and (100) and applies only in the retirement year. In years after the retirement year, Strategic Finance calculates depreciation no longer recognized. If a method recognizes no depreciation in the retirement year, enter 100.

**Note:** If modeling the asset sales, model accumulated depreciation on the retired assets.

Total depreciation is calculated by adding all depreciation accounts and subtracting retirements.
**Purpose 1: Depreciation**

@depr can depreciate capital investments streams using depreciation schedules. The formula should use the account forecasting capital investments (v2170.1.xxx). Enter the exact name of the schedule in quotations.

**Example 1:**

@depr(v2170.1.010, "Tax: 5 year")

With the 5 year MACRS depreciation schedule: 20%, 32%, 19.2%, 11.52%, 11.52%, 5.76%. There are six depreciation percentages due to the half-year convention.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPEX</td>
<td>16</td>
<td>20</td>
<td>30</td>
<td>35</td>
<td>40</td>
<td>45</td>
</tr>
</tbody>
</table>

In the first forecast year, 2000, Strategic Finance takes 19.2% of 1998’s investment (from the third period of the schedule), 32% of 1999’s 20, 20% of 2000’s 30 investment. The answer is 15.28.

**Purpose 2: Removing Retirements**

When removing assets from service before completely depreciating, remove the asset’s portion of the depreciation expense, because Strategic Finance depreciates initial investments. Strategic Finance does not know retirements occur in the future and can not adjust accordingly.

@depr can remove the retired portion from the depreciation amount. In @depr, reference the account holding asset retirements (v2170.3.xxx).

Reference the schedule depreciating the assets, enter the number of periods back the retired asset started, and reference the % of the initial investment being removed from the depreciation expense.

**Example 2:**

@depr(v2170.3.010, "Tax: 5 year", 3, .75)

**@if(T/F Test Condition, Execute if True, Execute if False)**

**Definition**

Conditional logic statement

**Syntax:**

@if(test condition, execute if "true", execute if "false")

Executes one of two commands based on a condition. The condition can be a formula, string, list, or date, and must return true or false. You can nest @if statements.
Returns
Results of executed command.

Example 1
For Net Income (v1750), if the common dividend payout percentage is based on the company’s net income growth over the previous year, and:

- If Net Income increases by at least 25%, the dividend is 20%
- If Net Income is below 25%, the dividend is 15%

The formula for Common Dividends is:
\[ @if((v1750-v1750(-1Y))/v1750(-1Y)>=25\%,\ v1750*20\%,\ v1750*15\%) \]

Example 2
If the model in example 1 is in quarters, but dividends are paid once a year at the fiscal year beginning, based on the prior year's net income, use a nested @if to calculate payment in the first quarter only:
\[ @if(\@qtrnum=1,\@if((v1750(-1q)-v1750(-5q))/v1750(-5q)>=25\%,\ v1750(-1q)*20\%,\ v1750(-1q)*15\%),0) \]

Note: In the analyze trail, Strategic Finance returns 1 if the answer is “true”, and a 0 if the answer is “false”.

- “Using strings” on page 375
- “Using lists” on page 375
- “Using Dates” on page 376

Using strings
Enter strings in quotes, for example: “Underwriting”. Strings are case-insensitive, and are used as function arguments only to test formulas—they cannot be used as results.

This is valid:
\[ @if(v1.0.600="Underwriting",\ v300*v305,\ @na) \]

because you can use strings in tests.

This is invalid:
\[ @if(v155=v160,\ 300,\ "Revenue") \]

because you cannot use string as results.

Using lists
Lists behave like strings. Lists can be time series or scalar.
For example, if an account “Processed?” (v150.00.0000) has these possible values: Yes, No, Not Available—this is valid:

@if(v150="Yes", 100, 200)

In enumerated number lists, numbers are handled as strings, and entered in quotes. For example:

@if(v176="8", 300, 400)

**Using Dates**

To enter dates, use the mm/dd/yyyy format within quotes, for example:

@if(v174="06/30/2003", 100, 300)

Dates are handled as strings.

**@isna(expression)**

**Definition**

Is not available

Can be used in @if statements.

**Returns**

- True—if the expression is undefined or not a number
- False—if not

**Example 1**

@isna(1/0)

The answer to the expression is undefined, so Strategic Finance returns true.

**Example 2**

@if(@isna(v2040/v1040), v2040/v1040, 0)

With Inventory (v2040) and Cost of Goods (v1040), this formula returns the inventory turnover when Cost of Goods Sold does not equal zero and 0 when Cost of Goods Sold does equal 0 or is N/A.

**@max(val., val.)**

**Definition**

Maximum

**Returns**

The greatest number in a range of values.
Example
@max(0, 1, 2)
Returns 2.

@min(val., val.)

Definition
Minimum
Returns the minimum of a value range. Formulas can be performed within function.

Example
@min(0, 1, 2)
Strategic Finance returns 0.

@not(condition or formula)

Definition
Not something
Used in @if statements to execute a command if a condition is not true.

Example 1
@if(@not(v1750>100000), 1, 2)
If v1750 (Net Income) is less than or equal 1 million, a 1 is returned, otherwise a 2 is returned.

Example 2
@if(@not(@isyear), 1, 2)
Strategic Finance returns 1 if the period is not a year (e.g. a month, quarter...), and a 2 upon other time structures.

Special Functions

Subtopics
- @debtex
- @pfdindebt
- @xspfdtodebt

These functions are for specific use. Do not use them unless absolutely necessary.
@debtex
Used by Debt Scheduler for internal calculations.

@pfdindebt
Used by Funding Options for internal calculations.

@xspfdtodebt
Used by Funding Options for internal calculations.
Modify spreadsheets by adjusting row height and column width, inserting rows and columns, and adding page breaks.

**Inserting Rows**

- **To insert rows:**
  1. In the *Accounts* view, select a row.
  2. Select *Edit*, then *Insert*, and then *Text Row*.
  3. On *Insert Text Row*, select an option:
     - Blank Text Row
       Create an empty row.
     - Subtotal Line
       Create a row with a line indicating a subtotal row following.
     - Total Line
       Create a row with double lines for indicating a total row following.
     - User Defined
Create a custom row break. Select one or both of these:

- **Text for Account Name Columns**
  Add a name to the row break, and enter the name in this field.

- **Text to Fill Data Columns**
  Add a row break across the row and enter a character in this field. The columns in the row display this character to indicate a break.

4. Click **Insert**.

### Inserting Columns and Page Breaks

To insert page breaks or columns:

1. In the workspace, select a column or row.
2. Select one of the following:
   - Edit, then **Insert**, and then **Text Column**
   - Edit, then **Insert**, and then **Page Break**.
3. Click **OK**.

### Concealing Rows and Columns

To conceal rows or columns:

1. On a report, select a row or column and right-click.
2. Select **Format**, then **Column | Row**, and then **Hide**.

### Resizing Rows or Columns Manually

To resize rows or columns:

1. In the heading row or column, hover the mouse pointer over the border.

   **Note:** This is easier after enabling Show Frame for Account Rows and \\Time Columns by selecting **Analysis**, and then **User Preferences**.

2. When the cursor becomes a double-headed arrow, drag to resize.
Resizing Rows and Columns

To resize rows and columns:

1. In the workspace, select the rows or columns.

2. Perform tasks to resize rows:
   - Select Format, then Row, and then Height.
   - Right-click rows, select Format, then Row, and then Height.
     Tip: To resize evently, select Autoheight.
   - In Height, enter a number.
   - Select Use Default Height and enter a number in Default Height.

3. Perform any task to resize columns:
   - Select Format, then Column, and then Autowidth.
   - Right-click, select Format, then Column, and then Width.

4. Click OK.

Resizing Column Width

To resize column width numerically:

1. In the workspace, select a column.

2. Right-click columns, select Format, then Column, and then Width.

3. On Column, perform an action:
   - In Width, enter a number.
   - Select Use Default Width, and enter a number in Default Width.

4. Click OK.
You can change selected or global numeric formats, the fonts and font attributes and the cell alignment contents in a report. You can modify, copy, and paste.

Moving and Copying Cell Contents

To copy and move cell contents:
1. In the workspace, select a cell or cells.
2. Select Edit, then Copy.
3. In the workspace, select a cell or cells.
4. Select Edit, then Paste.

Formatting Cells

To format cells:
1. In the workspace, select a cell or cells.
2. Select Format, then Cells.
3. See:
   - “Formatting Numbers” on page 383.
   - “Aligning Data” on page 383.
   - “Changing Fonts” on page 383.
   - “Changing Borders” on page 384.
   - “Changing Colors and Patterns” on page 384.
Formatting Numbers

To change the number format:

   See “Formatting Cells” on page 382.
2. Select Number.
3. In Category, select a format.
4. In Type, select type.
5. Click OK.

Aligning Data

To align cell data:

   See “Formatting Cells” on page 382.
2. Select Alignment.
3. In Horizontal, select an alignment.
4. In Vertical, select an alignment.
5. Select Wrap Text to ensure all text displays.
6. Optional: Select Merge Cells to merge cells.
7. Click OK.

Changing Fonts

To change cell fonts:

   See “Formatting Cells” on page 382.
2. Select Font.
3. In Font, select a font.
4. In Font style, select a style.
5. In Size, select a size.
6. Select:
   - Strikeout—Draw a line through text.
   - Underline—Draw a line under text.
   - Color — Select a color.
In *Script*, select a style.

Click OK.

**Changing Borders**

► To change cell borders:

1. **Access Format Cells.**
   
   See “Formatting Cells” on page 382.

2. **Select Border.**

3. **Under Line Style, select a color.**

4. **Select the cell borders to display.**

5. **Click OK.**

**Changing Colors and Patterns**

► To change cell fill colors or patterns:

1. **Access Format Cells.**
   
   See “Formatting Cells” on page 382.

2. **Select Patterns.**

3. **In Fill Color, select a color, and a fill pattern.**

4. **Click OK.**
Using Command Line Parameters

Using the command line utility, you can import and export the data, and some types of metadata. Metadata support includes creating Sub Accounts, Time Periods and creation of Entities from Templates. Use these command line parameters to import and export data. After running the Command Line Utility, you can verify the results by reviewing the exception file and log file. If no errors are reported in the log file, you can then access the imported data in the database.

To run the command line utility:

1. From the command prompt, you can navigate to either `EPM_ORACLE_HOME/products/hsf/client/utils` or `EPM_ORACLE_HOME/products/hsf/utils`, and run the following command:

   ```
   HSFImportExport.cmd/H:nodeName/S:serverName /P:portNumber /A:databaseName /U:userName /D:entityName /CP:commandPropertiesFileName /I:importFileName /E:/exportFileName /L:logFileName /?
   ```

   "Validation of Arguments Succeeded" is displayed.

   **Note:** To import or export data, use the command line parameters in the table.

2. In the command prompt, after validating the arguments, enter the Shared Services password for authentication.

   After the Import or Export succeeds, a message is displayed.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>-f:passwordFile</code></td>
<td><strong>Optional:</strong> If an encrypted password file is set up, use as the first parameter in the command line to read the password from the full file path and name specified in <code>passwordFile</code>.</td>
</tr>
<tr>
<td><code>/H:nodeName</code></td>
<td><strong>Optional:</strong> Specifies the machine name of the host machine running the HSF web application.</td>
</tr>
<tr>
<td><code>/S:serverName</code></td>
<td><strong>Optional:</strong> Specifies the name of the HSF server.</td>
</tr>
<tr>
<td><code>/P:portNumber</code></td>
<td><strong>Optional:</strong> Specifies the port number on which HSF web application is listening. The default value is 8900.</td>
</tr>
<tr>
<td><code>/A:databaseName</code></td>
<td>The database that contains the entity</td>
</tr>
<tr>
<td><code>/U:userName</code></td>
<td>User name with which to log on to the database.</td>
</tr>
<tr>
<td><code>/D:entityName</code></td>
<td>The entity to export or import.</td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>/CP:commandPropertieFileName</td>
<td>A properties file that contains commands specified in this usage message. They are merged with command line arguments for execution. Command line arguments take precedence for arguments that appear both in the command properties file and command line. Both command line and properties file are merged at run time. The .properties file format contains entries that are key-value pairs. The key and value pairs are separated with a colon (:) or equal sign (=). For example: The command properties file HSF_Params.properties for an export operation includes the following: /delimiter:COMMA /format:NUMBER /all_accounts:1 /all_time_periods:1</td>
</tr>
<tr>
<td>/I:importFileName</td>
<td>The location of the file that needs to be imported</td>
</tr>
<tr>
<td>/E:exportFileName</td>
<td>The location of the exported file</td>
</tr>
<tr>
<td>/L:logFileName</td>
<td>The file that will contains status and informational messages</td>
</tr>
<tr>
<td>/?</td>
<td>Display usage text</td>
</tr>
</tbody>
</table>

Command line parameters for exporting data:

```
```
Part IV

Importing and Exporting Data

In Importing and Exporting Data:

- Importing and Exporting EPM System Product Data
- Importing Data From and Exporting Data To Microsoft Excel
In This Chapter

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Working With Batch Entries ............................................................................. 396
Adding Entities ........................................................................................... 397
Running and Stopping Batch Imports and Exports ................................................... 397
Selecting Planning or Essbase Servers and Databases .............................................. 397

Requirements

Before importing or exporting data, ensure that an Administrator performs these tasks:

- Assigned your user ID the correct access privileges
- Connected to the appropriate EPM product server

Overview

Using the Strategic Finance server, you can import and export data using these EPM System products:

- Planning
- Essbase

This enables you to:

- Create one, unified view of enterprise financial information
- Save time and reduce error by creating direct product links
- Share key performance and operating metrics
- Leverage your finances and time by using the same data for different purposes
Note: Historical data is often used as a starting point for analyses in Strategic Finance.

**Taskflow**

You will perform these tasks to import and export data:

1. Identify the source and destination entities. See “Specifying Source and Destination Entities” on page 390
2. Map entities. See “Working with Import and Export Maps” on page 390
3. Create batches to specify servers. See “Working With Batches” on page 394
5. Run the import or export. See “Running and Stopping Batch Imports and Exports” on page 397

**Specifying Source and Destination Entities**

The source and destination entities are from which and to where Strategic Finance retrieves or pushes data. You cannot create metadata during an import or export, so if a destination entity does not exist, you must build one before creating a map.

- To import, the destination entity must exist within Strategic Finance and be open.
- To export, the EPM System product server must contain the destination entity.

**Working with Import and Export Maps**

Subtopics

- Managing Maps
- Creating Import and Export Maps
- Essbase Import and Export Maps

Maps relate Strategic Finance data to the data of other EPM System product servers. As guides for translating data between two formats, maps ensure data is exported to the right place. When you create maps, Strategic Finance evaluates the names of the dimensions, time periods, and scenarios and creates mappings between properties of the same name. Maps also define, within other EPM System product servers, default import or export entities. A default entity applies to map in which it is defined and is overwritten when a batch entry is created. For exporting or importing with EPM System products built on Essbase, you can base maps on alias tables.
Managing Maps

To manage maps:

1. Open an entity. See “Opening Entities” on page 61.
2. Select Server, then Maps.
3. In Map Type, select the product.
4. Perform a task:
   - To define a map, click Create, and then see “Creating Import and Export Maps” on page 391.
   - To work with an existing map, select it, and then click one:
     1. Check Out—Open the map
     2. Release Lock—Unlock the map
     3. Delete—Delete the map

Creating Import and Export Maps

Subtopics

- Mapping Dimensions
- Mapping Common Dimensions
- Mapping Accounts
- Mapping Time Periods
- Mapping Scenarios

To create import or export maps:

1. Open the entity. See “Opening Entities” on page 61.
3. Click Create.
4. In New Map, enter a unique name.
5. Optional: To base the map on another, select Copy of Map, and select a map.
6. Click OK.
7. In Maps, select the map and click Check Out.
8. Select a server, application, and database. See “Selecting Planning or Essbase Servers and Databases” on page 397.
10. See “Mapping Common Dimensions” on page 392.
Mapping Dimensions

Note:
- At least one account, time, and scenario dimension must be mapped before you configure accounts, time periods, and scenarios.
- Assign a common dimension to act as a global variable between entities.

To map dimensions:
1. Open a map.
   See “Managing Maps” on page 391.
2. Select Select.
3. For each dimension in the Dimension column, select a dimension in the Assign to column.

   Note: You must map one account, time, and scenario dimension before configuring accounts, time periods, and scenarios.

4. To use Essbase alias tables, select tables in Alias Table.
5. To change the dimension processing order, select Accounts, then Time, then Scenarios or Common, and use the arrows.

Mapping Common Dimensions

During import and export, common dimensions act as global variables. For example, for an entity with a dimension named Location and members East and West, to import data only from East, you set Location as a common dimension and map only the East member.

For a map, you can assign a default entity in the other EPM System product server that is used for importing and exporting. Assigning a default entity is useful if you plan to use one entity in Strategic Finance. Default entities are overridden by batch entries.

You can define the monetary scale for importing or exporting. For example, numbers can be imported as ones, thousands, millions, and billions.

To map common dimensions:
1. Open the map.
2. Select Common.
3. For each dimension, specify a member in Member.
During the import, each selected member becomes a global variable. For example, for the Location dimension with members East and West, if you define West as the common dimension, the import selects only data associated with West.

4 In Default Entity, select a Strategic Finance entity from which to pull lists.

5 In Scale currency/unit in, select a base unit for calculations. Examples:
   - Default—Use the scale in the source entity.
   - Ones—1.0 = 1
   - Millions—1.0 = 1,000,000

6 Select Scale percentages? to determine the location of the decimal point in values expressed as percentages: For example, if enabled, 10.3% is displayed as 10.3. If disabled, 10.3% displays as .103.

7 Select For Accounts not imported, preserve to determine how to handle values for accounts that are not imported:
   - Input Values—use the account input value
   - Output Values—use the account output value

8 Select Prompt for Common Dimensions? to notify users of common dimensions when running the export or import.

9 Select Import NULL values as zeroes to translate empty values in the source as numeric zero values.

**Mapping Accounts**

After defining accounts dimensions, map accounts between the target and source entities to ensure account data is correctly imported or exported.

- To map accounts:
  1 Open a map.
     See “Managing Maps” on page 391.
  2 Select Accounts.
  3 Map accounts:
     a. In To, select the destination account.
     b. In From, select the source account.
     c. Click Add.
     d. Repeat for all imported or exported accounts.

**Mapping Time Periods**

- To map time periods:
  1 Open a map.
     See “Managing Maps” on page 391.
2 Select Time.

3 Map accounts:
   a. In To, select the target time period.
   b. In From, select a source time period.
   c. Click Add.
   d. Repeat for all imported or exported time periods.

Mapping Scenarios

To map the scenarios:

1 Open a map.
   See “Managing Maps” on page 391.

2 Select Scenario.

3 For each scenario in the left column, select a scenario in the right column.

Essbase Import and Export Maps

To define server-side import or export with an Essbase server, follow the instructions for creating Planning import and export maps.

To import and export data with Essbase databases that are not Planning databases, ensure that:

- The country attribute is assigned to the entity dimension in the Essbase database, similar to how accounts and time attributes are assigned to their respective dimensions.
- The Essbase database includes a scenario dimension.
- The Essbase Server is configured to run with external authentication, for connecting with the Strategic Finance server.

Working With Batches

Subtopics

- Managing Batches
- Creating Batches
- Setting Batch Properties

Batch names identify server and database connections.
Managing Batches

To manage batches:

1. From any view, select Server, then Batches.
2. In Batches, select the product to which to import or export.
3. Click one:
   - Create. See “Creating Batches” on page 395.
   - Check Out to open batches
   - Release Lock to unlock batches
   - Delete to delete batches

Creating Batches

Batches are stored on the Strategic Finance server. They require server connections and maps.

To create batches:

1. Ensure that an Administrator granted you the required permissions.
2. From Batch Manager, click Create.
   - See “Working With Batches” on page 394.
3. In New Batch, enter a unique name.
4. In Batch based on, select an option.
   - Select Default to create a batch that is not based on another batch.
   - Select Copy of Batch to create a batch based on another batch, browse to the batch.
5. See “Setting Batch Properties” on page 395.

Setting Batch Properties

After creating batches, specify properties to identify the server, application, and database for the import or export.

To set batch properties:

1. From Batch Manager, select a batch and click Check Out.
   - See “Working With Batches” on page 394.
2. Select Batch, then Properties.
3. Select a server and database
4. In Server Connection, enter the domain name or IP Address of the Planning server.
By naming the server of another Oracle Enterprise Performance Management System product, you give the Strategic Finance server a way of locating the source or destination.

5 For products based on Essbase, in **Application**, enter the name of the application in which the database resides.

The specified application is a container located on the server, and within which databases are stored.

6 In **Database**, enter the name of the database in which source data resides or where destination data is written.

7 In **Default Map**, enter the name of the map.

8 **Optional**: If the source entity contains an HSF Link to another entity, select **Update HSF Links?**.

An HSF Link connects two Strategic Finance entities. Unless you specify batch properties to update, Strategic Finance does not recalculate linked values during export.

9 To be notified when the import or export finishes, select **Email on Completion?**, and then specify an e-mail address

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### Working With Batch Entries

Before importing or exporting, you must create a batch entry. A batch entry associates source and destination entities, and specifies, for the batch, a map to override the default map.

Batch-entry-related instructions:

- “Defining Batch Entries” on page 396
- “Deleting Batch Entries” on page 396

#### Defining Batch Entries

1. To define batch entries:
   
   1. From **Batch Manager**, select a batch, and then click **Check Out**.
      
      See “Working With Batches” on page 394.
   
   2. Select **Edit**, then **Batch Entries**, and then **Add Batch Entry** or **Edit Batch Entry**
   
   3. In **HSF Entity**, specify the Strategic Finance entity.
   
   4. In **Planning Entity**, specify the Planning entity.
   
   5. In **Map Override**, select the Oracle Hyperion Planning map.

#### Deleting Batch Entries

1. To delete batch entries:
   
   1. Select **Run**, then **Batch Manager**, and then select the entry.
2 Select Edit, then Batch Entries, and then Delete Batch Entry.

Adding Entities

➢ To add entities:
1 Under Name, select an entity.
2 To set display options for Names, select Server Filter, and perform these tasks
   ● Select Show As Tree to display and expand top-level entities.
   ● In Entity Group Filter, enter entity groups to list only entities in those groups.
     Use semicolons between names.
   ● In Entity Filter, enter words or phrases to filter out entities by words or phrases.
   ● Click Save as Default to store the filter criteria.

Running and Stopping Batch Imports and Exports

After creating and defining the map, batch, and batch entry, run the batch entry to import or export data.

➢ To run or rerun batches:
1 Define a target entity that shares the accounts, time periods, and scenarios with the source entity.
2 From any view, select Server, and then Batches.
3 Select the product batch type.
4 In Batches, select a batch and click Check Out.
5 Select Batch, then Properties.
6 Select a server and database.
7 Under Run, select one or more batch entries.
8 Select Batch, then Run Batch.

To stop runs, select Batch, and then Stop Batch Run.

Selecting Planning or Essbase Servers and Databases

➢ To select servers and databases:
1 Select a server.
2 Select a database.
3 Click OK.
Importing and Exporting Excel Spreadsheets

Subtopics
- Creating Excel Import Maps
- Importing Excel Spreadsheet Data
- Exporting Report Data to Excel

Creating Excel Import Maps

Before you can import an Excel spreadsheet, you must map the relationships between the Excel data and Strategic Finance data.

To create Excel import maps:

1. From any Strategic Finance view, select File, then Import, then From Excel File, and then Create New Map.

2. In Select Excel-format Spreadsheet to Import, open an Excel file.

3. Using these procedures, edit the map:
   - “Setting or Editing Excel Import Map General Options” on page 400.
   - “Setting or Editing Excel Import Map Accounts Options” on page 400.
   - “Setting or Editing Excel Import Map Time Periods Options” on page 401.

4. Click OK.
5 In Save Map As, enter a name for the map (*.mpr), and click Save.

**Setting or Editing Excel Import Map General Options**

► To set general options for Excel import map:

1 From any Strategic Finance view, select File, then Import, then From Excel File, and then Edit / Run Existing Map.

2 In Select Map to Edit, open an Excel import map (*.mpr).

The Excel file from which the map was generated is identified.

3 Select Options.

4 Select a sheet.

5 In Column containing mapping labels, enter the letter specifying the Excel column containing account labels.

6 In Column containing account names, enter the letter specifying the Excel column from which to import account names if you select Import account names.

7 In Row containing time labels, specify the Excel row containing time-period labels.

The time labels in Excel and Strategic Finance must match.

8 Select Import account names to import the account names in the column specified in Column containing account names.

9 Select Prompt for file when importing to prompt for the Excel file name when importing maps.

If not used the last-accessed Excel file is imported.

10 Under For accounts not imported, preserve..., specify whether to use input values or output values to use for accounts that are not imported.

11 In Scale currency/units in, specify the currency scale.

This option converts the currency and units scale of the Excel data when imported.

For example, if Sales in the Excel spreadsheet is 1500 and sales in the Strategic Finance file is in thousands, if you scale in thousands, the data is imported and stored as 1,500,000 and displayed as 1500. If you scale in ones, the data is imported as 1500 and displayed as 1.5.

12 Select Scale percentages for percentages to retain the same value when the scale for the currency and units changes.

13 Select Aggregate Duplicate Accounts if multiple instances of an account exist in the Excel spreadsheet, and they should import as one account.

**Setting or Editing Excel Import Map Accounts Options**

► To set edit Excel import map accounts options:

1 From any Strategic Finance view, select File, then Import, then From Excel File, and then Edit / Run Existing Map.
2 In Select Map to Edit, open the Excel import map (*.mpr).
   The Excel file from which the map was generated is identified.

3 Select Accounts.

4 Optional: To automatically map accounts, click Auto-map.

5 Map individual accounts:
   a. In From, select an Excel account.
   b. In To, select a Strategic Finance account.
   c. Click Add to map the two accounts.

   Note: If you add the wrong account, select the account in To and click Remove.

d. In To, select the account and click +/- to add or subtract the source value from the destination account.

   If the Excel file displays credit balances as negative numbers, switch the sign to import the value properly.

6 Optional: To scroll through accounts in To, click Next or Previous.

7 Optional: To locate invalid links, click Invalid Links.

8 Optional: To display only Excel accounts that are not mapped in From, click Show only unassigned spreadsheet accounts.

Setting or Editing Excel Import Map Time Periods Options

- To set or edit time period options of Excel import maps:

1 From any Strategic Finance view, select File, then Import, then From Excel File, and then Edit / Run Existing Map.

2 In Select Map to Edit, open the Excel import map (*.mpr).

3 Select Time Periods.

4 Select an option:
   - Import All Time Periods
   - Set Time Range
      In Beginning and Ending Boundary, enter time formulas. See Chapter 21, “Using Freeform Formulas”

5 Click OK.
Importing Excel Spreadsheet Data

To import data using Excel import maps:

1. From any Strategic Finance view, select File, then Import, then From Excel File, and then Edit / Run Existing Map.
2. In Select Map to Edit, open the Excel import map (*.mpr).
3. Click Import.

Exporting Report Data to Excel

You can export report data from Strategic Finance to Excel files. The data is exported as it appears in Strategic Finance. Exported Report views include only data in the report.

To export data to Excel:

1. From any Strategic Finance view, select File, then Export, and then Automatic.
2. Click Multiple and select reports.
3. Enter a file name for the Excel file to export.
4. Click Save.

Importing Excel Batches

Subtopics

- Creating Batch Excel Imports
- Defining General Batch Information and Running Batches
- Defining Batch Import Time Period Rules
- Viewing Batch Import Logs
- Adding Mapping Entries for Excel Batch Imports
- Selecting Excel Files and Information
- Running Batch Import File

The Batch Import feature enables you to use import maps to import data from Excel into multiple scenarios.

Creating Batch Excel Imports

Before creating a batch import, you must create empty Strategic Finance files or entities reflecting the dimension and time structure of the Excel files and create Excel import maps. See “Creating Excel Import Maps” on page 399.
To create batch import files:

1. From any Strategic Finance view, select **File**, then **Batch Import**, and then **Create New Import File**.
2. Select an option:
   - Select **Entities saved to a PC or on a LAN** to import to local Strategic Finance files.
   - Under **Select the target of the Batch Import**, select **Entities saved to an HSF Server** to import to Strategic Finance server entities.
3. Click **OK**.
4. Select **Batch Info**.
5. Click **Add**.
6. Perform these actions:
   - Define general batch information. See “Defining General Batch Information and Running Batches” on page 403.
   - Define time periods. See “Defining Batch Import Time Period Rules” on page 404.
   - View Excel batch import logs. See “Viewing Batch Import Logs” on page 404.

**Defining General Batch Information and Running Batches**

To define general batch information:

1. Select **Batch Info**.
2. From **Open**, select a batch import file and click **Open**.
3. Click **Add** to select source and destination Strategic Finance files or entities.

See “Adding Mapping Entries for Excel Batch Imports” on page 405 and “Selecting Excel Files and Information” on page 405.

This information is listed for each batch file:

- **Batch Import File**—Name of the batch import file (read-only)
- **Last Batch Run**—Date the batch was last run
- **Target Entity**—Target entity
- **Source**—Source file
- **Map**—Excel map
- **Time Periods**—Time-period setting
- **Scenario**—Target scenario
- **Last Run**—Date the entry was last run

4. Click **OK**.
5. Select a batch or click **Select All**.
6. Click **Run Batch Import**.
Defining Batch Import Time Period Rules

Source-target mappings can have time-period rules importing a time range. Each source/target mapping can have one time-period import rule.

1. From any Strategic Finance view, select File, then Import, then From Batch File, and then Edit/Run Existing Batch Import File.
2. From Open, select a batch import file and click Open.
4. Select an option:
   - Import All Time Periods
     Import all time periods.
   - Set Time Range
     In Beginning and Ending Boundary, enter time formulas.
   - Use the Time Period
     Use the time-period rule.
5. Click OK.

Viewing Batch Import Logs

When you run batch imports, Strategic Finance logs results and exceptions.

1. From any Strategic Finance view, select File, then Import, then From Batch File, then Edit/Run Existing Batch Import File.
2. From Open, select a batch import file and click Open.
3. Select Logs.
   - Batch Import File identifies the batch import File.
4. In Click to view, select an event to display the log.
5. Click Print to print the selected log.
6. Click Purge Log to delete the selected log.
7. Click Purge All Logs to delete all the logs.
8. Click OK.
Adding Mapping Entries for Excel Batch Imports

To add map entries for Excel batch imports:

1. From any Strategic Finance view, select File, then Import, then From Batch File, and then Edit/Run Existing Batch Import File.
2. Select Target HSF.
3. Select a target.
4. In Password, enter the password.
   For use if the file has password protection—see “Password—Protecting Files” on page 51.
5. In Scenario Override, enter a scenario.
   Determines the target scenario for import. The default is the current scenario. Click Browse to search.
6. Under Time Period, enter time period rules.
   See “Defining Batch Import Time Period Rules” on page 404.
7. Select the Excel file.
   See “Selecting Excel Files and Information” on page 405.
8. Click OK.

Selecting Excel Files and Information

To designate Excel files for batch imports:

1. Select Excel Information.
2. In Related Map, enter or browse to select a map.
   See “Creating Excel Import Maps” on page 399.
3. Click Edit Excel Map to edit the map.
   See “Setting or Editing Excel Import Map General Options” on page 400.
4. In Excel File, enter or browse to an Excel file.
5. In Password, enter a password if the Excel file is password-protected.
6. In Sheet Override, enter the sheet to import from the Excel file.
   Overrides the Sheet to import from option in “Setting or Editing Excel Import Map General Options” on page 400.
7. Click OK.
8. On Save As, enter a name.
9. Click Save.
   Batch files have the *.alb extension.
Running Batch Import File

To run batch imports:

1. From any Strategic Finance view, select File, then Import, then From Batch File, and then Edit/Run Existing Batch Import File.

2. On Open, select a batch file and click Open.

3. Select Batch Info.

   This information is listed for each batch file:
   - Batch Import File—Name of the file (read-only)
   - Last Batch Run—Last time the batch was run
   - Target Entity—Name of the target entity
   - Source—Name of the source file
   - Map—Name of the map file
   - Time Periods—Time periods for the map
   - Scenario—Target scenario
   - Last Run—Last time the mapping entry was run

4. Under Import, select each entry to import.

   Click Select All to run all batches.

5. Click Run Batch Import.

Exporting from Strategic Finance Clients to External Essbase Databases

Subtopics

- Creating Essbase Export Maps
- Selecting Essbase Dimensions
- Selecting Essbase Common Dimensions
- Selecting Essbase Accounts
- Selecting Essbase Time Periods
- Exporting Data from Strategic Finance Clients to Essbase Servers

Creating Essbase Export Maps

Before transferring data with Essbase databases, you must create a map. The map file stores the database to which it connects. Map files have these filename extensions:

- Export maps—*.mps
- Import maps—*.mpr
Before you create maps, the Essbase cube and Strategic Finance file must have matching dimension and time structures.

To create import or export maps between Strategic Finance and Essbase:

1. **Open Strategic Finance files as follows:**
   - Export maps—open source files
   - Import maps—Create then open empty target files

2. **Perform an action:**
   - To create import maps, select **File**, then **Import**, then **From Database**, and then **Create New Map**.
   - To create export maps, select **File**, then **Export**, and then **Create New Map**.

3. **On Create New Map, select Analytic Services and click OK.**

4. **Select an Essbase server and database and click OK.**

5. **Edit mapping options:**
   - To assign dimensions, see “Selecting Essbase Dimensions” on page 407.
   - To assign common dimensions, see “Selecting Essbase Common Dimensions” on page 408.
   - To assign accounts, see “Selecting Essbase Accounts” on page 409.
   - To assign time periods, see “Selecting Essbase Time Periods” on page 409.

6. **Click OK.**

7. **On Save Map As, enter a name for the map file and click Save.**

### Selecting Essbase Dimensions

To assign dimensions:

1. **Select Select.**

2. **In Dimensions, build dimension-to-dimension relationships between Strategic Finance and Essbase:**
   Dimensions include account names, time periods, and scenarios in addition to common dimensions. You can define options in one of two ways:
   - Under **Dimensions** and **Assign to...**, select dimensions.
     - Under **Dimensions**, select Strategic Finance dimensions.
     - Under **Assign to...**, select the corresponding dimensions in Essbase.
   - In **Alias Table**, select an alias table defining dimensional relationships.

3. **View Accounts dimensions.**
   Accounts displays all mapped account dimensions in the processing order.
   To reorder, select one and click the up or down arrows.
View **Time** dimensions.

Time displays all mapped time dimensions in the processing order.

To reorder, select one and click the up or down arrows.

5 View **Common** dimensions.

Common displays all mapped common dimensions. You assign common dimension mappings. See “Selecting Essbase Common Dimensions” on page 408.

To reorder, select one and click the up or down arrows.

6 View **Automap** dimensions.

Automap displays dimensions that are automatically mapped.

## Selecting Essbase Common Dimensions

Common dimensions are global variables.

1 To assign common dimensions:

   1 Select **Common**.

   2 In **Common Dimensions**, build dimension-to-dimension relationships:

      - Under **Dimensions**, select Strategic Finance dimensions.

      - Under **Assign to...**, select corresponding Essbase dimensions.

   3 In **Scale currency/unit in**, select a scale.

      You change the scale when it takes many units of a currency to equal one unit of the other currency. For example, you can change the scale to millions or thousands to eliminate trailing zeros. Options:

      - Tens
      - Hundreds
      - Thousands
      - Millions

   4 Select **Scale percentages?** to express data as a percentage.

      For example, to express 10.3 as .103, deselect this option.

   5 In **For Accounts that are not imported, preserve...**, select an option:

      - Input Values—Include input values.

      - Output Values—Include output values.

   6 Select **Prompt for Application and Database?** to prompt the user to select the application and database.

      For use in systems with multiple applications or multiple databases or both.

   7 Select **Prompt for Common Dimensions?** to alert the user when common dimensions occur.
Selecting Essbase Accounts

To assign accounts:

1. Select Accounts.

2. In To, select an account and click Add.

   Click Find Accounts to search account.

   Note: To remove an account, select one in To and click Remove.

3. In Source accounts with, select an account from To.
   - Click Prev to scroll to the previous account.
   - Click Next to scroll to the next account.

4. Add source accounts:
   a. In From, select an account and click Add.

      Click Find Accounts to search account.

      Note: To remove an account, select one in To and click Remove.
   b. In From, select an account and click +/- to indicate whether the source account should be added or subtracted during the import or export.

5. In Other Essbase Dimensions, you can select multiple dimensions to specify target accounts.

   For example, if you name a general account “Sales” with a dimension for specifying a regional sales group, under Dimension 1, you select “East” to indicate Sales/East.

Selecting Essbase Time Periods

To assign time periods:

1. Select Time.

2. Map time periods:
   a. In From:, select a source time period.
   b. In To:, select a target time period.
   c. Click Add to map the To and From time periods.

3. In Other Analytic Services Dimensions, map dimensional accounts.

4. Click OK.

5. In Save Map As, enter a name for the map file, and click Save.

   Names can be up to eight characters, plus one of these extensions:
   - Export maps—*.mps
   - Import maps—*.mpr
Exporting Data from Strategic Finance Clients to Essbase Servers

After you create a map, use it to transfer data between Strategic Finance and Essbase.

To export data:

1. Open a Strategic Finance file:
   - To export, open the source file.
   - To import, open the destination file.

2. Select File, then Export, and then Edit Existing Map.

3. In Select Map to Edit, select a map and click Open.

   In List Files of Type, select the type of file:
   - All Files (*.*)—All files in the current directory
   - Map Retrieve Files—Import Maps (*.mpr)
   - Map Send Files—Export Maps (*.mps)

   You can enter text from the keyboard in List Files of Type to sort the files:
   - To see files with an extension, type an asterisk (*), a period, and the three-character extension, and press Enter.
   - To see files with multiple file name extensions, separate extensions with semicolons (;).
     For example, to see files with the .mpr and .mps extensions, enter “*.mpr; *.mps”.

4. Select the Essbase server and database and click OK.

5. Perform an action:
   - Click Import.
   - Click Export.

Exporting Essbase Outlines

Use this feature to generate an outline (in a *.txt file) of a Strategic Finance file to create Essbase outlines using the account structure, time, and scenario information as the Strategic Finance file.

- Members of the Account dimension generate as follows:
  - For income statement accounts, the highest-level member is Net Income.
  - For balance sheet accounts, the highest-level members are Total Assets and Total Liabilities and Equity.
  - The outline generation process nests lower-level accounts by inserting only those accounts that are added or subtracted in calculations.
  - The outline generation process nests subaccounts one level below that subaccount's main account. The outline includes subtotals.
The outline generation process applies these rules to Freeform Formulas. For example, only subtractions and additions are included.

- All time periods, including subperiods and aggregate time periods, are included in the Time dimension.
- All named scenarios, except for the undefined scenario, are included in the Scenario dimension.

**Note:** See the Essbase documentation for instructions on loading outlines into Essbase.

To export to Essbase outlines:

1. Open a Strategic Finance file.
2. Select **File**, then **Export**, and then **Automatic**.
3. In **Save as Type**, select **Essbase Outline (*.txt)**.
4. In **File Name**, enter a name.
5. Click **Save**.

**Importing and Exporting ASCII Files**

Strategic Finance exports Strategic Finance-formatted ASCII file formats, which have three sections:

- **Strategic Finance Header Information**—Enables Strategic Finance to recognize whether the data that follows is understandable to Strategic Finance.
- **Keyword Area**—Provides Strategic Finance information about the data that follows, including time-period information.
- **Data**—Contains Strategic Finance account names or account numbers, names, and data values. For each row of account data in the ASCII file, the first field represents the account number or name; these data fields represent the numerical financial account data.

**Example by Account Name:**

```plaintext
# Hyperion Strategic Finance Formatted ASCII File#
#comment
#delimiter=comma
#format=name
#time,2002,2003
"Company Name," Sample Company
"Subject," Most Likely Scenario
"Product Sales," 466.200, 512.800
"Service Revenues," 1468.300, 1519.200
```
"Cost of Goods Sold," 1435.200, 1529.900
"Salary Expense," 156.200, 169.300
"Selling Expense," 54.300, 57.800
"Administrative Expense," 87.200, 93.50
0

where:
# Hyperion Strategic Finance Formatted ASCII File#
#comment
#delimiter=

Comma (or tab) specifies how the data is separated (delimited) in the ASCII file.

#format=

Name (or number) specifies how the data is indexed in the ASCII file, by the Strategic Finance account number or by the user-defined account name. When formatted by account number, the second data item is the account name, followed by the financial data.

The header lines
#time, 2002, 2003

identify the file as Strategic Finance format and define the delimiter, format, and time periods in the file. The time periods in the ASCII file are matched against Strategic Finance user period labels.

If the account name,
Cost of Goods Sold
does not match anything in the Strategic Finance file, the line is not imported. If the export option was by account number, Cost of Goods Sold is preceded by v1040.0.00.

Company Name

is an example of a value (in this case, text) that has one value, no time series information. When the system encounters such accounts, it transfers the first data value after the account name or number.

- “ASCII File Import/Export Applications” on page 413
- “About Importing ASCII (Link) Files” on page 414
ASCII File Import/Export Applications

Subtopics

- Transferring Data Between Strategic Finance Files
- Recovering Data from Damaged Files
- Changing Default Currency Units Without Rescaling
- Importing Financial data from Excel worksheet Files
- Printing Financial Output by Account

The ASCII file Import/Export feature is useful for many operations besides transferring data between Strategic Finance and other applications.

Transferring Data Between Strategic Finance Files

You can transfer data between Strategic Finance files songlessly if source and target files share subaccount structure, Freeform formulas, and account descriptions. Because the ASCII file contains the calculated outputs for all input accounts, transfer works even if different forecast methods are chosen in the target file. Strategic Finance back-calculates the input values based on the forecast method selected when importing from an ASCII file.

To transfer data between Strategic Finance files:
1. Export the data in your source file (by account number).
2. Import the ASCII file into the target Strategic Finance file.

Recovering Data from Damaged Files

To recover data from a damaged Strategic Finance file, use the damaged file as the source file and an undamaged template as the destination file.

Changing Default Currency Units Without Rescaling

When you change the default currency units in Summary Information, data in the file is automatically rescaled. If you enter data in Strategic Finance with the wrong default currency units, and you would like to change the currency units without rescaling the data, you can use the ASCII file import/export feature.

For example, suppose you entered Sales as $3,000 with a default currency unit of absolute (meaning $3,000) but intended to enter Sales as $3 million, with a default currency unit of thousands. If you change the default currency units to thousands, Strategic Finance rescales the data to read $3 in thousands of dollars. To circumvent automatic rescaling, so that Sales reads as “$3,000 in thousands of dollars” ($3 million), use the file as the source and the destination files.

To change default currency units without rescaling all data:
1. Export the data to an ASCII file by account number.
In the Strategic Finance file, from the File menu, choose Summary Information and change the default currency units.

3 Import the ASCII file back into the same Strategic Finance file.

**Importing Financial data from Excel worksheet Files**

If the Excel file account names match those in Strategic Finance, your financial data can be imported. If the account names do not match, copy and paste the descriptions from Excel into Strategic Finance.

➢ To import data from an Excel file:

1 In Strategic Finance, create a template with the same time-period structure and account names as your Excel file. In Excel, insert this heading on your worksheet:

```
# Hyperion Strategic Finance Formatted ASCII File#
#comment
#delimiter=comma
#format=name
#time, (list period labels here)
```

2 Save the Excel file as a comma-delimited ASCII file, and import the ASCII file into Strategic Finance.

**Printing Financial Output by Account**

In Strategic Finance, output data is listed by account name only. You can view the data by account number by exporting it to Excel.

➢ To list the financial data by account number:

1 Export the Strategic Finance data to an ASCII file by account name.

2 In Excel, open the ASCII file using the comma-delimited format.

3 Data appears in the Excel file by account number.

**About Importing ASCII (Link) Files**

You can import data in an ASCII file format from other applications such as databases and spreadsheets. Strategic Finance reads and writes Strategic Finance format ASCII files. This file format is a comma- or tab-delimited file structure that includes:

- Header information: delimiter (comma or tab), format (account number or name) and time-period labels.
- Financial account information (account numbers or names) used to map the data values (for nonaggregate periods only) to the Strategic Finance data file.
In Strategic Finance, the output values in the ASCII file are used to back-calculate the input values of each input relative to its forecast, except for Freeform formulas and growth rates from a previous period zero (0) value. In these cases, Strategic Finance overrides these values with “#” (currency).

- When importing an ASCII file with account names, text or symbols not matching account names in your current .alc file result in an error message.
- An imported ASCII file must contain a header with a label worded exactly as follows:

  #Hyperion Strategic Finance Formatted ASCII File#
  #comment
  #delimiter=comma (or "tab")
  #format=number (or "name")
  #time, (list period labels here)

- Even if Input and Display flags are not set for an account in the .alc file (in Customize view), input data imports from an ASCII file. Set the Input flag to view the data in the account.
- If spaces are entered in an ASCII file (blank rows), they are not acknowledged, and all recognized data is imported into the Strategic Finance file.
- The time-period labels specified in the ASCII file header must match the labels in the Strategic Finance file or template, or an error message appears.

### Importing ASCII Files Through HSFLink

Strategic Finance enables you to create a file directly from an ASCII file. The ASCII file must have the correct instructions so that Strategic Finance knows how to respond. The file must share rules as a normal ASCII file import, with additional rules.

1. To import using HSFLink:
   1. Select **File**, then **Import**, and then select **From HSF File**.
   2. Select the ASCII file and then click **OK**.

   Strategic Finance transfers data from the ASCII file to the data file by matching the account number or names, whichever is provided in the ASCII file for import.

3. See the following sections.

#### template=

List the template from which you expect to build the file. The template you select dictates which account and report structure import will use.
#decimal_separator=""," or ","

Use this item to indicate the decimal separator of any ASCII import file. Import uses this setting to determine how to treat the import file.

#create_time_periods=

Use “yes” or “1,” and import creates a time structure. If you select this option, #time row of the ASCII file defines the time structure. Use “no” or “0” not to create the time structure.

Creating the time structure in an open template discards the time structure of the current file and replaces it with the structure of the ASCII file.

If you create time periods, Strategic Finance sets the historical/forecast boundary to the last period in the import file. That is, use this feature to import historical data. You can move the historical/forecast boundary manually.

To set the number of years to use in the historical average calculation, add a row in the ASCII file for v2.00.240, the variable that holds the value.

#fiscal_year_start=

To create time periods, define the first month of the fiscal year. Use jan, feb, and so on, or 1–12 to set the first month. If you do not create time periods, this value is ignored.

#days_in_year=

Use 360 or 365 to create a year of that type.

#create_subaccounts=

To have import create subaccounts on the fly, use “yes” or “1.” Otherwise, use “no” or “0.” If you choose to create subaccounts, the ASCII file can list an account such as v2000.00.010, which might not exist in the template. Import creates the subaccount, labels it from the ASCII file, defaults the forecast method from the main account, imports the data, and solves for the forecast method.

#accumulate=

If you list a Strategic Finance account more than once in the ASCII file, set this flag to “1.” Strategic Finance adds the values from each instance of the account to get the total for that account. If you do not accumulate the values, you get the last instance of the account.
**Importing Data from ASCII files**

This option requires that the active Strategic Finance file or template has a time period in common with the data in the ASCII file that is being imported.

➢ To import data from an ASCII file:

1. Open the target Strategic Finance file and make it the active window.
2. In the Strategic Finance file, create the same time-period structure as that in the ASCII data file.

Note: Time periods need not be identical.

For example, your file may contain five years—two historical and three forecast—and your ASCII file may contain two years of history. On import, Strategic Finance matches the historical periods based on their period labels.

3. Select File, then Import, and then From HSF File.
4. Select ASCII files.

**Saving Imported Files**

After you import an ASCII file, save the Strategic Finance file now containing the data.

➢ To save imported files:

1. From any Strategic Finance view, select File, then Save As.
2. Enter <filename>*.alc.
3. Click OK.

**Exporting Files**

Subtopics

- Selecting ASCII File Options
- Selecting Multiple Reports to Export

You can export to some formats without much preparation.

➢ To export a file:

1. From any Strategic Finance view, select File, then Export, and then To Files.
2. In File Name, select or enter the name of the file to export.

This lists files with the file name extension selected in the Export Files of Type field.
To list files of the same extension, type an asterisk (*), a period, and the three-character extension, and click Enter.

To list different file types, separate multiple file name extensions with semicolons (;). For example: *.xls; *.asc.

3 In **Save as Type**, select a file type from **File Name**:

- **Select ASCII Files (*.asc)**
  
  Exports output (calculated) values for input accounts or for all accounts into a comma- or tab-delimited ASCII file format that indexes the account data by the account descriptions or the Strategic Finance account numbers. Even if the Input and Display flags for an account are not set in the Customize view, input data for that account are exported to an ASCII file.
  
  See “**Selecting ASCII File Options**” on page 418.

- **Select Report to Excel Files (*.xls)** to export selected Strategic Finance reports into an Excel file (*.xls).

- **Select Essbase Outline (*.txt)** to create an Essbase outline out of the accounts in Strategic Finance (*.txt). This outline can be loaded into a Essbase database.

- **Select Export Map Files (*.mps)** to create a map (*.mps) file that exports Strategic Finance data to Oracle Essbase, or Excel.

4 **View the File Information**.

Displays the day, date, and time the file was last saved; the size of the file; and the status of the read/write privileges.

5 **Optional**: If you are exporting to ASCII, click **Options** to select various ASCII options.

  See “**Selecting ASCII File Options**” on page 418.

6 **Optional**: If you are exporting to Excel, click **Multiple** to select multiple reports to export. See “**Selecting Multiple Reports to Export**” on page 419.

7 Click **Save** to perform the export.

### Selecting ASCII File Options

- **Optional**: Select an **Delimiter for Data Items**... option to define a delimiter—Comma or Tab—within the ASCII format.

- **Optional**: Select an **Export Calculated Values of**... option to specify which accounts—All Accounts or Input Accounts Only—should be exported.

- **Optional**: Select an **Include Values for**... option to specify which time periods should be included in the export:
  
  - **All Time Periods**—Includes both input time periods and calculated time periods (that is, annual periods with monthly or quarterly data and period-to-date periods).
● **Input Periods Only**—Includes only periods that contain input values.

4 **Optional:** Select an **Index Values by**... option to specify how the exported data should be indexed:
  - HSF Account Number
  - Account Name

5 Click **OK**.

## Selecting Multiple Reports to Export

To select multiple reports for an export:

1 In **Reports to Export**, select reports to export.
   - Select individual reports by clicking on the name.
   - Click Select All.
   - Click Unselect All.

2 Click **Close**.

## Creating Import and Export Maps

To create maps:

1 Perform an action:
   - To import—Select File, then Import, then Database, and then Create New Map.
   - To export—Select File, then Export, and then Create New Map.

2 Select a database type, then click **OK**.
(v3.00.220) Years of Loss Carryforward / (v3.00.240) Years of Loss Carryback

If Calculate Tax Effects Automatically is selected in Tax Effect of Losses, Strategic Finance automatically carries forward or carries back Net Operating Losses (NOLs). Years of Loss Carryforward (v3.00.220) defaults to a carryforward period of 15 years. Years of Loss Carryback (v3.00.240) defaults to a carryback period of 3 years. Both time periods can be adjusted.
4.xx.xxxx Accounts

Subtopics

- (v4.00.520) Perpetuity Growth Rate (%)
- (v4.00.540) Perpetuity Value Growth Duration (years)
- (v4.00.720) Perpetuity Growth Rate
- (v4.00.740) Perpetuity Value Growth Duration (years)
- (v4.00.760) Residual Value Target Leverage Ratio
- (v4.00.780) L-T Return on Book Equity

(v4.00.520) Perpetuity Growth Rate (%)
An input, when using the Growth in Perpetuity Method, to calculate residual value. It is the rate at which Taxable Operating Profit (v3210) increases or decreases in the residual period.

(v4.00.540) Perpetuity Value Growth Duration (years)
An input, when using the Value Growth Duration Method, to calculate residual value. It is the number of years at which Taxable Operating Profit (v3210) continues to grow beyond the forecast horizon.

(v4.00.720) Perpetuity Growth Rate
An input, when using the Growth in Perpetuity Method, to calculate residual value while using the Dividend Discount Method. It is the rate at which the Perpetuity Affordable Dividend (v5410) increases or decreases in the residual period.

(v4.00.740) Perpetuity Value Growth Duration (years)
An input, when using the Value Growth Duration Method, to calculate residual value. It is the number of years during which the Affordable Dividend (v5400) continues to grow beyond the forecast horizon.

(v4.00.760) Residual Value Target Leverage Ratio
Residual Value Target Leverage Ratio (%) (v4.00.760) is an input when using the Perpetuity, Growth in Perpetuity, and Value Growth Duration methods to calculate residual value. It is used to calculate both Affordable Dividend (v5400) and Perpetuity Affordable Dividend (v5410).
(v4.00.780) L-T Return on Book Equity

An input, when using the Dividend Discount Model, used to compute the Dividend Flow and the Perpetuity Affordable Dividend (v5410).

5.xx.xxxx Accounts

Subtopics

- (v5.00.200) Current Stock Price
- (v5.00.500) Market Value of Debt
- (v5.00.520) Underfunded Pension Liabilities
- (v5.00.560) Investments in Stocks and Bonds
- (v5.00.700) Market Value of Other Liabilities: DDM
- (v5.00.720) Market Value of Other Assets: DDM
- (v5.00.800) E.P. Residual Value Tax Rate
- (v5.00.820) Residual NOPAT Adjustment
- (v5.00.900) Valuation Adjustment for Cost and Equity Methods: SVA
- (v5.00.910) Valuation Adjustment for Cost and Equity Methods: EP
- (v5.00.920) Valuation Adjustment for Minority Interest: SVA
- (v5.00.930) Valuation Adjustment for Minority Interest: EP

(v5.00.200) Current Stock Price

Enter the current market price of the stock, if available. This value can be compared to the Shareholder Value per Share (v5080), Equity Value Per Share (v5380), and Economic Profit Shareholder Value per Share (v5795) to see if the market seems to be undervaluing or overvaluing the stock.

Custom Ratios #1 - #10 (v6400.00 - v6445.00)

These accounts can be used to create your own calculations.

In addition, Custom Ratios (v6400.00-v6445.00) can be subaccounted; you can create up to 999 ratios under each Custom Ratio (v6400.00-v6445.00).


(v5.00.500) Market Value of Debt

Calculated using the yield to maturity of all debt instruments in a company’s debt portfolio. The market value typically differs from the face value of debt when the coupon rate on a debt instrument differs from the rate of return currently required by investors on similar investments, because the market price increases or decreases to a level yielding their required return (the “yield to maturity”).
(v5.00.520) Underfunded Pension Liabilities

Excess of vested benefits (“normal cost”) over the sum of pension fund assets and balance sheet accruals. For a more conservative estimate, include the unvested portion with vested benefits. Underfunded Pension Liabilities (v5.00.520) is an obligation that must be deducted from Corporate Value (v5060) or Economic Profit Corporate Value (v5785) to arrive at Shareholder Value (v5070) or Economic Profit Shareholder Value (v5795), respectively.

(v5.00.560) Investments in Stocks and Bonds

Market value of the company’s current portfolio of long-term investments in stocks and bonds. Include the market value of your Investments: Equity Method (v2420) and Investments: Cost Method (v2430).

Neither this account nor shorter-term investments, such as Marketable Securities (v2010), are accounted for in Cash Flow from Operations (v4100), but both increase the value of the company and are included in Corporate Value (v5060). See Underfunded Pension Liabilities (v5.00.520).

(v5.00.700) Market Value of Other Liabilities: DDM

Calculated using the yield to maturity of all debt instruments in a company’s debt portfolio. The market value is typically different from the face value of debt when the coupon rate on a debt instrument differs from the rate of return currently required by investors on similar investments, because the market price increases or decreases to a level yielding their required return “yield to maturity”).

(v5.00.720) Market Value of Other Assets: DDM

Market value of the company’s current portfolio of long-term investments in stocks and bonds. Include the market value of your Investments: Equity Method (v2420) and Investments: Cost Method (v2430).

Neither this account nor shorter-term investments, such as Marketable Securities (v2010), are accounted for in Cash Flow from Operations (v4100), but both increase the value of the company.

(v5.00.800) E.P. Residual Value Tax Rate

This tax rate is multiplied by Taxable Operating Profit (v3210) to calculate Residual NOPAT for Perpetuity (v5810) when analyzing Economic Profit.
(v5.00.820) Residual NOPAT Adjustment

Used to adjust Taxable Operating Profit (v3210) in the post-forecast period. Residual NOPAT Adjustment (v5.00.820) is added to Taxable Operating Profit (v3210) to calculate Residual NOPAT for Perpetuity (v5810).

(v5.00.900) Valuation Adjustment for Cost and Equity Methods: SVA

Dialog variable adjusts the SVA report for investments using the cost and equity consolidation methods. The product of the ownership percentage of the consolidating entities and their respective valuations using SVA increase this variable (v5070 Shareholder Value).

(v5.00.910) Valuation Adjustment for Cost and Equity Methods: EP

Dialog variable adjusts the SVA report for investments using the cost and equity consolidation methods. The product of the ownership percentage of the consolidating entities and their respective valuations using Economic Profit increase this variable (v5790 Economic Profit Shareholder Value).

(v5.00.920) Valuation Adjustment for Minority Interest: SVA

Dialog variable adjusts the SVA report for investments using the Minority Interest Method. The ownership percentage that is not owned by the consolidated company is multiplied by the target company’s shareholder value to arrive at the adjustment. This value subsequently is subtracted from the consolidated entities’ overall shareholder value (v5070 Shareholder Value).

(v5.00.930) Valuation Adjustment for Minority Interest: EP

Dialog variable adjusts the Economic Profit report for investments using the Minority Interest Method. The ownership percentage that is not owned by the consolidated company is multiplied by the target company’s shareholder value to arrive at the adjustment. This value is subsequently subtracted from the consolidated entities’ overall economic profit value (v5790 Economic Profit Shareholder Value).
1000.xx.xxxx to 1999.xx.xxx Accounts

Subtopics

- (v1000.00) Sales
- (v1020.00) Discounts & Returns
- (v1030.00) Sales (Net)
- (v1040.00) Cost of Goods Sold
- (v1070.00) Gross Profit
- (v1080.00) SG&A Expense
- (v1090.00) Other Operating Income/(Expense)
- (v1100.00) Earnings Before Int., Taxes, Depr., and Amort.
- (v1110.00) Depreciation Expense
- (v1115.00) Amortization Expense
- (v1150.00) Operating Profit
- (v1160.00) Other Revenues & Gains
- (v1170.00) Gain on Sale of Assets
- (v1180.00) Other Expenses & Losses
- (v1190.00) Dividends from Investments: Cost
- (v1200.00) Earnings Before Interest & Taxes
- (v1220.00) Other Interest Income
- (v1240.00) Total Interest Income
- (v1300.00) Total Short-Term Interest Expense
- (v1350.00) Total Interest on Long-Term Debt: Scheduled
- (v1360.00) Other Interest Expense
- (v1370.00) Total Long-Term Interest Expense
- (v1400.00) Interest Expense
- (v1410.00) Interest Capitalized
- (v1420.00) Total Interest Expense
- (v1600.00) Earnings Before Taxes
- (v1610.00): Trial Provision for Income Taxes
- (v1620.00) Unrealized Tax Benefit of Losses
- (v1630.00) Current Provision for Income Taxes (Excl. NOL)
- (v1635.00) Additional Tax Refund
- (v1640.00) Tax Refund
- (v1650.00) Current Provision for Income Taxes
- (v1660.00) Deferred Provision for Income Taxes
- (v1670.00) Provision for Income Taxes
- (v1680.00) Other Taxes
- (v1690.00) Total Taxes
- (v1700.00) Income After Taxes
- (v1720.00) Minority Interest
- (v1730.00) Extraordinary Items
- (v1750.00) Net Income
- (v1800.00) Preferred Dividends
- (v1850.00) Income Available for Common Shareholders
- (v1880.00) Common Dividends
- (v1890.00) Affordable Dividend
- (v1900.00) Total Common Dividends

(v1000.00) Sales
Discounts & Returns (v1020). The dollar growth in sales over one or more periods is “incremental sales.” For example, if sales increased over the prior period from $100 to $120, the incremental sales is $20.

Although Sales (v1000.00) by default is forecast using the Growth Rate method, you also can express your projections for Sales (v1000.00) in terms of price and quantity by using the Freeform forecast method with Memo Accounts (v300-v345).

**(v1020.00) Discounts & Returns**

Account for sales adjustments such as discounts taken, allowances, and returns.

**(v1030.00) Sales (Net)**

Sales (Net) (v1030.00) represents Sales (v1000) after Discounts & Returns (v1020). It is calculated as:

\[
\text{(v1000.00) Sales} - \text{(v1020.00) Discounts & Returns} = \text{(v1030.00) Net Sales}
\]

**(v1040.00) Cost of Goods Sold**

Also called Cost of Sales, refers to the expensed cost of units sold. It is generally determined as follows:

\[
\text{Beginning Inventory} + \text{Cost of Goods Purchased or Manufactured} - \text{Ending Inventory} = \text{Cost of Goods Sold}
\]

Cost of Goods Sold (v1040.0) may contain direct and indirect costs. Examples of direct costs include raw materials, assembly components, and the labor costs directly associated with the manufacture of the products to be sold. Examples of indirect costs are the overhead expenses (utilities, taxes, and depreciation) associated with production and manufacturing.

**(v1070.00) Gross Profit**

This incomestatement account consists of Sales (v1030) less the Cost of Goods Sold (v1040):

\[
\text{(v1030.00) Sales (Net)} - \text{(v1040.00) Cost of Goods Sold}
\]
(v1080.00) SG&A Expense

The Selling, General and Administrative Expenses (v1080.00) (SG&A) appear on the company’s Income Statement.

Examples of Selling Expenses:
- Sales office salaries and sales commissions
- Travel and entertainment
- Advertising expenses
- Depreciation of sales equipment

Examples of General and Administrative Expenses:
- Officers’ salaries
- Clerical salaries and professional fees
- Utilities and insurance (not associated with manufacturing)
- Depreciation of office buildings and equipment

(v1090.00) Other Operating Income/(Expense)

Income or expense items directly associated with the production and the administrative functions of the business that you think should not be classified as Sales (v1000). Enter income in this account as a positive number and expense as negative number.

You can change the account description, to be consistent with your income or expense item, in the Financial Accounts view.

(v1100.00) Earnings Before Int., Taxes, Depr., and Amort.

This Income Statement item is calculated as:

\[
\text{(v1070.00)} \quad \text{Gross Profit} \\
- \text{(v1080.00)} \quad \text{SG & A Expense} \\
+ \text{(v1090.00)} \quad \text{Other Operating Income / Expenses} \\
= \text{(v1100.00)} \quad \text{Earnings Before Int., Taxes, Depr., and Amort.}
\]

(v1110.00) Depreciation Expense

An accounting convention designed to expense the historical cost of a tangible asset over its useful life. Depreciation expense does not necessarily reflect the decline in the market value of an asset.
Many companies show depreciation expense on the Income Statement, the Cash Flow Statement, and Funds Flow Statement. Other companies include depreciation expense in COGS (v1040) and/or SG&A Expense (v1080) and do not report depreciation expense on the Income Statement.

Because the depreciation expense on the Funds Flow Statement must equal all depreciation expenses in Net Income (v1750), Depreciation Expense (Funds) (v2190.01) must equal or exceed Depreciation Expenses (v1110.00) reported separately on the Income Statement.

To enter Depreciation Expense (v1110.00) for the Income Statement:

Depreciation Expense (v1110.00) uses a Freeform forecast method that calculates the Depreciation Expense (v1110.00) in forecast periods as equal to Depreciation Expense (Funds) (v2190.01). To allocate a portion of Depreciation Expense (Funds) (v2190.01) to other Income Statement items, change the forecast method to Percent of Another Account, using Depreciation Expense: (Funds) (v2190.01) as the Associated Account. Enter the unallocated percentage (0-99%) in Depreciation Expense (v1110.00). If the percentage entered in Depreciation Expense (v1110.00) is less than 100%, it is assumed that the remaining amount for Depreciation Expense (Funds) (v2190.01) have been included in other accounts on the Income Statement, such as SG&A Expense (v1080) or COGS (v1040).

To enter total Depreciation Expense (Funds) (v2190.01), see “(v5745.00) Economic Profit NOPAT” on page 508.

(v1115.00) Amortization Expense

Amortization expense is an accounting convention designed to expense the historical cost of an intangible asset over its useful life. Amortization expense does not necessarily reflect the decline in the market value of an asset.

Many companies show amortization expense as an item on the Income Statement, the Cash Flow Statement and Funds Flow Statement. Other companies include amortization expense in Cost of Goods Sold (COGS) (v1040) and/or Selling, General and Administrative (SG&A) Expense (v1080) and therefore do not report amortization expense as an item on the Income Statement.

Because the amortization expense on the Funds Flow Statement must equal all amortization expense included in Net Income (v1750), Amortization on Goodwill and Amortization for Other Intangibles must equal or exceed Amortization Expense (v1115.00) reported separately on the Income Statement.

To enter Amortization Expense (v1115.00) for the Income Statement:

Amortization Expense (v1115.00) uses a Freeform forecast method that calculates the Amortization Expense (v1115.00) in forecast periods as equal to Amortization of Other Intangibles (v2410.03) plus Amortization of Goodwill (v2400.03).
Operating Profit

The income generated by the ongoing production and administrative functions of the business. The entries that follow Operating Profit (v1150.00) (with the exception of income gains or losses from the sales of assets), should be restricted to income and expenses related to:

1. Unusual or nonrecurring transactions
2. Investments outside the company
3. Interest income and expense
4. Taxes

Operating Profit (v1150.00) is calculated as follows:

\[
\text{(v1100.00)} \quad \text{Earnings Before Int., Taxes, Depr., and Amort.}
\]

\[- \text{(v1110.00)} \quad \text{Depreciation Expense}
\]

\[- \text{(v1115)} \quad \text{Amortization Expense}
\]

\[= \text{(v1150.00)} \quad \text{Operating Profit}
\]

Other Revenues & Gains

This account can be used to enter nonoperating items that do not fit into other categories on the Income Statement or that should be highlighted as an account. Enter expenses as negative numbers.

You can rename this account with a label that is more consistent with your income or expense item in the Financial Accounts view.

Gain on Sale of Assets

A gain is realized on the sale or retirement of assets when the proceeds received exceed the net book value of the assets sold. Similarly, a loss results when the proceeds are less than the net book value of the assets sold. Enter gains as a positive number and losses as a negative number. For historical periods, enter the before-tax gain or loss on the sale of assets as it should appear on the Income Statement. For forecast periods, enter the gain or (loss) on the sale of assets or use the default Freeform formula to enter the Proceeds from Sale of Assets.

Forecast Proceeds from Sale of Assets (Default Forecast Method)

Freeform formula:

\[
\text{(@input) Proceeds from Sale of Assets}
\]

\[- \text{(v2170.03)} \quad \text{Gross Retirements}
\]

\[+ \text{(v2190.03)} \quad \text{Accumulated Depreciation on Retirements}
\]

\[= \text{(v1170.00)} \quad \text{Gain on Sale of Assets}
\]
The sale or retirement of assets also affects the Balance Sheet and the Cash Flow Statement. The Balance Sheet reflects the reduction in Gross Fixed Assets (v2170) and Accumulated Depreciation (v2190) due to the sale of assets. The Cash Flow Statement contains Proceeds from Sale of Assets (v4000) with the tax on the gain of sale of assets included in Total Taxes on Operations (v3280).

The Funds Flow statement shows the Gain on Sale of Assets as a source of funds.

**(v1180.00) Other Expenses & Losses**
Can be used to enter special nonoperating items that do not fit into the other categories on the Income Statement. This item is a subtraction, because such items are typically losses. Therefore, to represent a nonoperating gain or income, enter it as a negative number. Expenses or losses in this account are entered as positive number.

This account can be renamed in the Financial Accounts view with a description more consistent with the nature of your nonoperating items.

**(v1190.00) Dividends from Investments: Cost**
This nonoperating income statement item refers to dividends received from long-term investments in companies over which the investing company lacks “significant influence,” presumably holding less than 20% of the stock and intending to hold it for years. These investments are reported on the Balance Sheet in Investments: Cost Method (v2430).

If the investment is in marketable equity securities, the investing company reports the investments based on acquisition cost or market value, whichever is less. If the investment is in the form of nonequity or nonmarketable securities, it is reported at acquisition cost. Dividends from these investments are treated as revenue.

**(v1200.00) Earnings Before Interest & Taxes**
This Income Statement account is calculated as follows:

- **(v1180.00) Other Expenses & Losses**
- **(v1170.00) Gain on Sale of Assets**
- **(v1160.00) Other Revenues & Gains**
+ **(v1190.00) Dividends from Investments: Cost**
+ **(v1200.00) Earnings Before Interest & Taxes**

**(v1220.00) Other Interest Income**
Can be used to summarize the income, in history and forecast, the company receives from its Marketable Securities (v2010) and Excess Marketable Securities (v2015), and other interest
income earned. You can forecast this account using the default forecast method, Default Currency, or based on a percent of current, prior, or average balances of one or more investment accounts.

You may also choose to forecast the detail of interest on Marketable Securities (v2010.05) and Excess Marketable Securities (v2015.5) in their respective accounts.

Interest Income is considered a nonoperating income item and therefore is not included in the calculation of Cash Flow from Operations (v4100), which is used in calculating shareholder value.

**(v1240.00) Total Interest Income**

Calculated as:

- **(v1220.00) Other Interest Income**
- **+ (v2010.05) Interest on Marketable Securities**
- **+ (v2015.05) Interest on Excess Mkt. Securities**
- **+ (v2460.05) Interest on L-T Funding Asset**

= **(v1240.00) Total Interest Income**

**(v1300.00) Total Short-Term Interest Expense**

Nonoperating account that captures the total interest expense associated with interest-bearing obligations due within one year. This account, used only on the Funding Analysis Report, is calculated as follows:

- **(v2510.05) Interest on Curr. Portion of L-T Debt**
- **+ (v2520.05) Interest on Notes Payable**

= **(v1300.00) Total Short-Term Interest Expense**

**(v1350.00) Total Interest on Long-Term Debt: Scheduled**

The Total Interest on Long-Term Debt: Scheduled is calculated as follows:

- **(v2660.05) Interest on Long-Term Debt: Scheduled**
- **+ (v2660.03) Non-Cash Int on Long-Term Debt: Scheduled**

= **(v1350.00) Total Interest on Long-Term Debt: Scheduled**
**(v1360.00) Other Interest Expense**

Nonoperating item is input into historical and forecast periods. For more-detailed reporting, this account allows you to enter a summary interest expense amount or other interest expense. Interest expense detail typically is not displayed in historical periods on financial statements, but interest detail usually is forecast instead of the summary amount.

**(v1370.00) Total Long-Term Interest Expense**

Total Long-Term Interest Expense (v1370.00) due on long-term debt.

- \((v1350.00)\) Total Interest on Long-Term Debt: Scheduled
- \(+ (v2690.05)\) Interest on Long-Term Debt: Excess
- \(+ (v1360.00)\) Other Interest Expense

\[\text{Total Long-Term Interest Expense} = (v1370.00)\]

**(v1400.00) Interest Expense**

The sum of various interest expense accounts, before accounting for Interest Capitalized (v1410).

- \((v1300.00)\) Total Short-Term Interest Expense
- \(+ (v1370.00)\) Total Long-Term Interest Expense

\[\text{Total Interest Expense} = (v1400.00)\]

**(v1410.00) Interest Capitalized**

Interest costs are “capitalized” in certain situations relating to financing the construction or acquisition of certain “qualified” fixed assets. For guidelines, see FASB Statement No. 34.

Interest Capitalized (v1410.00) represents the capitalized interest in each historical and forecast period. The period-by-period values you enter for Interest Capitalized (v1410.00) are subtracted from the total of all interest expense accounts to arrive at the Total Interest Expense (v1420) reported on the Income Statement.

Historical figures for Gross Fixed Assets (v2170) and Accumulated Depreciation (v2190) typically include capitalized interest. To forecast the change in Gross Fixed Assets (v2170) due to capitalized interest separately from other capital expenditures, create a subaccount of Gross Fixed Assets (v2170) to hold the accumulated balance of capitalized interest.

**(v1420.00) Total Interest Expense**

This account nets the sum of all interest expense accounts with Interest Capitalized (v1410).

- \((v1400.00)\) Interest Expense
- \(- (v1410.00)\) Interest Capitalized
(v1600.00) Earnings Before Taxes

\[
(v1200.00) \quad \text{Earnings Before Interest and Taxes} \\
- (v1420.00) \quad \text{Total Interest Expense} \\
+ (v1240.00) \quad \text{Total Interest Income} \\
= (v1600.00) \quad \text{Earnings Before Taxes}
\]

(v1610.00): Trial Provision for Income Taxes

Contains the cash taxes paid by a company excluding refunds due to net operating losses carried forward or backward. Income taxes consist of domestic and foreign federal (national), state, and local (including franchise) taxes based on income. In historical periods, enter the taxes paid. In the forecast periods, the default forecast method is as a Percent of Taxable Income (v3140.00). The statutory tax rate must be entered into the Trial Provision for Income Taxes (v1610.00) account. This formula can be modified to model different tax calculations types (such as for various countries) using a Freeform formula.

(v1620.00) Unrealized Tax Benefit of Losses

Input in history and calculated in forecast periods, the period-by-period offset to Trial Provision for Income Taxes (v1610) in case of a tax loss.

(v1630.00) Current Provision for Income Taxes (Excl. NOL)

Calculated account displays the output of Trial Provision for Income Taxes (v1610) plus Unrealized Tax Benefit of Losses (v1620). Because Trial Provision for Income Taxes (v1610) receives the tax rate input and calculates a tax amount, and Unrealized Tax Benefit of Losses (v1620) adjusts the tax amount for NOL-related carryforwards, this account shows the result of the tax rate and the tax benefit on the Income Statement.

\[
(v1610.00) \quad \text{Trial Provision for Income Taxes} \\
+ (v1620.00) \quad \text{Unrealized Tax Benefit of Losses} \\
= (v1630.00) \quad \text{Curr. Provision for Income Taxes (Excl. NOL)}
\]

(v1635.00) Additional Tax Refund

Input tax refunds manually in this account. If calculating tax refunds, this account acts as an adjustment to the calculated Tax Refund (v1640). Use this account, for example, to enter a more refined estimate of your tax refund.
(v1640.00) Tax Refund

Tax refund associated with a loss carry forward or back. This account is automatically calculated if you select **Calculate Tax Effects Automatically** on the **Tax Effect of Losses** dialog. In the historical periods, the input for **Additional Tax Refund** (v1635) is used in this account. In the forecast periods, this account is calculated as:

\[
(v1635.00) \text{ Additional Tax Refund} \\
+ (v3150.00) \text{ Tax Refund Due to Loss Carryforward} \\
+ (v3160.00) \text{ Tax Refund Due to Loss Carryback}
\]

\[
= (v1640.00) \text{ Tax Refund}
\]

(v1650.00) Current Provision for Income Taxes

Cash taxes paid by a company in a given year, including tax refunds resulting from net operating loss (NOL) carryforwards and carrybacks. It is calculated as:

\[
(v1630.00) \text{ Current Provision for Income Taxes (Excl. NOL)} \\
- (v1640.00) \text{ Tax Refund}
\]

\[
= (v1650.00) \text{ Current Provision for Income Taxes}
\]

(v1660.00) Deferred Provision for Income Taxes

Measures taxes owed in future periods due to timing differences. These events occurred in the current period but generate future tax liabilities (or assets). See “(v5070.00) Shareholder Value (PV)” on page 496.

One temporary difference results from accelerated depreciation schedules. Greater depreciation early in the life of an asset results in tax savings today (as compared to straight-line depreciation), but savings are offset in later years when book depreciation is greater than tax depreciation.

The default forecast method is as a Percent of Temporary Differences (v3120.00).

Deferred Provision for Income Taxes also can be calculated as the net change in deferred taxes, using the Freeform formula:

\[
(v2770.01) \text{ Incr. in Deferred Income Taxes} \\
+ (v2580.01) \text{ Incr. in Current Deferred Tax Liability} \\
- (v2380.01) \text{ Incr. in Deferred Tax Asset} \\
- (v2080.01) \text{ Incr. in Current Deferred Tax Asset}
\]

\[
= (v1660.00) \text{ Deferred Provision for Income Taxes}
\]
(v1670.00) Provision for Income Taxes

Company's net tax liability on all income regardless of when these taxes become payable. In most cases, this amount is less than the amount for which a company is liable using the statutory rate.

Calculated as follows:

\[
\begin{align*}
\text{(v1650.00)} & \quad \text{Current Provision for Income Taxes} \\
+ \quad \text{(v1660.00)} & \quad \text{Deferred Provision for Income Taxes} \\
= \quad \text{(v1670.00)} & \quad \text{Provision for Income Taxes}
\end{align*}
\]

(v1680.00) Other Taxes

Represents additional tax obligations not captured in other tax accounts.

(v1690.00) Total Taxes

Sums the Provision for Income Taxes (v1670) and Other Taxes (v1680):

\[
\begin{align*}
\text{(v1670.00)} & \quad \text{Provision for Income Taxes} \\
+ \quad \text{(v1680.00)} & \quad \text{Other Taxes} \\
= \quad \text{(v1690.00)} & \quad \text{Total Taxes}
\end{align*}
\]

(v1700.00) Income After Taxes

This Income Statement account consists of:

\[
\begin{align*}
\text{(v1600.00)} & \quad \text{Earnings Before Taxes} \\
- \quad \text{(v1690.00)} & \quad \text{Total Taxes} \\
= \quad \text{(v1700.00)} & \quad \text{Income After Taxes}
\end{align*}
\]

(v1720.00) Minority Interest

If the company you are analyzing (Company A) owns more than 50% but less than 100% of another company (Company B), it typically consolidates the financial statements of the two entities. To recognize that a portion of the combined company’s income and assets do not belong to the shareholders of Company A, the account Minority Interest (v1720, v2780) appears on both the Income Statement (as a deduction) and on the Balance Sheet (as equity). Enter Minority Interest (v1720.00) as an after-tax amount.

For example, assume Company A owns 60% of Company B, and Company A produces consolidated financial statements combining the two companies. All of Company B’s earnings ($20 million) and equity ($100 million) are included in Company A’s Income Statement and Balance Sheet. But because Company B’s other shareholders own 40% of the earnings and equity
contributed by Company B, Minority Interest (v1720.00), is calculated and recorded as 40% of the $20 million of Company B’s earnings or $8 million.

**(v1730.00) Extraordinary Items**

These income statement items relate to transactions or events that are unusual and infrequent. Enter amounts as after-tax and add them to income after taxes. Enter an extraordinary loss as a negative number.

The company’s environment is key to deeming a loss extraordinary. For example, damage sustained by forest products companies after Mount St. Helens erupted is an Extraordinary Item (v1730.00), because the volcano had not erupted since logging began in Washington State. But frost damage to Florida citrus crops is not extraordinary, because freezing temperatures are anticipated every few years.

Exceptional items that do qualify for classification as extraordinary:

- Material gains and losses from early extinguishment of debt
- Tax benefits of loss carryforwards recognized in periods after the loss

**(v1750.00) Net Income**

After-tax Income Statement item is calculated as:

\[
\begin{align*}
(v1700.00) & \quad \text{Income After Taxes} \\
+ & \quad (v2420.03) \quad \text{Earnings from Investments: Equity} \\
- & \quad (v1720.00) \quad \text{Minority Interest} \\
+ & \quad (v1730.00) \quad \text{Extraordinary Items} \\
= & \quad (v1750.00) \quad \text{Net Income}
\end{align*}
\]

**(v1800.00) Preferred Dividends**

Dividends (v1800.00), classified as a distribution of income, not as an expense, to be paid to holders of Preferred Stock (v2820).

**(v1850.00) Income Available for Common Shareholders**

Portion of Net Income (v1750) available to pay Common Dividends (v1900), calculated by Net Income (v1750) minus Preferred Dividends (v1800).
(v1880.00) **Common Dividends**

Cash dividends to be paid to holders of common stock. Using the default forecast method, enter this item in Absolute Currency amounts in historical periods and as a Percent of Net Income (v1750) in forecast periods.

(\v1890.00) **Affordable Dividend**

Affordable dividend is a calculated account in all forecasted years. The calculation runs as a balancing account when using Target Capital Structure in Funding Options. This account is useful when a user must decrease their equity without selling shares.

(\v1900.00) **Total Common Dividends**

Calculated account sums Common Dividends (v1880) and Affordable Dividends (v1890). This account does not allow for inputs or subaccounting. Total Asset Turnover (v6085.00)

Total Asset Turnover (v6085.00) is an activity ratio that shows how intensively the company’s assets are being used. The ratio is calculated as follows:

Sales (Net) (v1030.00)
Subtopics

- (v2000.00) Cash
- (v2005.00) Cash Used in Transaction
- (v2010.00) Marketable Securities
- (v2015.00) Excess Marketable Securities
- (v2017.00) Total Marketable Securities
- (v2020.00) Accounts Receivable
- (v2030.00) Allowance for Doubtful Accounts
- (v2035.00) Net Accounts Receivable
- (v2040.00) Inventory
- (v2050.00) Notes Receivable
- (v2060.00) Prepaid Expenses
- (v2070.00) Intercompany Current Assets
- (v2080.00) Current Deferred Tax Assets
- (v2090.00) Other Current Assets—Operating
- (v2095.00) Other Current Assets—Non-Operating
- (v2100.00) Total Current Assets
- (v2170.00) Gross Fixed Assets
- (v2190.00) Accumulated Depreciation
- (v2200.00) Net Fixed Assets
- (v2380.00) Deferred Tax Asset
- (v2390.00) Land
- (v2400.00) Goodwill
- (v2410.00) Other Intangibles
- (v2420.00) Investments: Equity Method
- (v2430.00) Investments: Cost Method
- (v2440.00) Other Assets
- (v2460.00) Long-Term Funding Asset
- (v2470.00) Non-Current Operating Asset
- (v2480.00) Total Non-Current Assets
- (v2490.00) Total Assets
- (v2490.00) Total Assets
- (v2500.00) Accounts Payable
- (v2510.00) Current Portion of Long-Term Debt
- (v2510.05 Interest on Current Portion Long-Term Debt
- (v2520.00) Notes Payable
- (v2525.00) Accrued Interest
- (v2590.00) Other Current Liabilities—Operating
- (v2530.00) Income Taxes Payable
- (v2540.00) Intercompany Current Liabilities
- (v2580.00) Current Deferred Tax Liability
- (v2595.00) Other Current Liabilities—Non-Operating
- (v2600.00) Total Current Liabilities
- (v2660.00) Long-Term Debt: Scheduled
- (v2690.00) Long-Term Debt: Excess
- (v2690.09) Balance Correction Long-Term Debt: Excess
- (v2700.00) Total Long-Term Debt
- (v2760.00) Other Deferrals
- (v2770.00) Deferred Income Taxes
- (v2780.00) Minority Interest

Increase in Cash (v2000.01) 439
Cash (v2000.00) includes these accounts recorded at their stated book value:

1. Currency and coins
2. Negotiable checks
3. Balances in bank accounts

For valuation purposes, enter in Cash (v2000.00) only the minimum balances necessary for normal operations; include excess cash in Marketable Securities (v2010). Minimum cash balances include such accounts as compensating balances required by loan agreements and the level of cash and bank balances necessary to fulfill daily transactions.

(v2005.00) Cash Used in Transaction

Cash used to finance an acquisition. It is related only to the acquisition and therefore is separate from the cash balance (v2000.00). This account is used to calculate the ending cash balance (v4630) on the Cash Flows report.

(v2010.00) Marketable Securities

(Increase in Marketable Securities (v2010.01))

Marketable Securities (v2010.00) are short-term investments intended to be held for no longer than one year, such as short-term certificates of deposit, Treasury bills, Treasury bonds, and cash not entered in Cash (v2000). Their value has generally been recorded at acquisition cost, although an increasing number of companies are stating these securities at the lower of acquisition cost or market value.

For valuation purposes, enter current market values, even if the resulting Balance Sheet does not tie to published financials.

(v2010.05) Interest on Marketable Securities

The pretax rate or dollar amount of interest you can expect to earn on Marketable Securities (v2010), such as government securities and certificates of deposit.

Interest on Marketable Securities (v2010.05) is input in history and forecast periods. The default forecast method for Interest on Marketable Securities (v2010.05) is as a Percent of Prior Period Marketable Securities (v2010). You can also use the Percent of Another Account or the Percent of Average Account forecast methods.

(v2010.06) Minimum Marketable Securities

This account allows you to specify a minimum balance to be maintained for Marketable Securities (v2010) in all periods. If Marketable Securities (v2010) is selected as a Cash Deficit account in Funding Options, and Specify minimum balance is selected in Advanced Options, Marketable Securities (v2010) does not fund below the specified minimum balance in this
account. If this setting in Advanced Options is not selected, amounts entered in this account does not affect other calculations or accounts in your model.

**(v2010.07) Maximum Marketable Securities**

(Incr. in Maximum Marketable Securities (v2010.08))

Used to specify the maximum balance for Marketable Securities (v2010) to reach when Funding Options is accumulating a Cash Surplus.

**(v2010.09) Balance Correction Marketable Securities**

This account, calculated in all periods, receives amounts, generated by the balancing routine in Strategic Finance, that must make the funds flow balance (sources and uses of funds) in the forecast period.

**(v2015.00) Excess Marketable Securities**

(Incr. in Excess Market. Securities (v2015.01))

Excess Marketable Securities (v2015.00), like Marketable Securities (v2010), are short-term investments. When all funding instruments are reduced and funds remain, Excess Marketable Securities (v2015.00) accumulates excess funds. This account is the first funding source in the case of a Cash Deficit. Like Long-Term Debt: Excess (v2690), most attributes related to this account are unchangeable. You cannot subaccount Excess Marketable Securities (v2015.00), which has an unlimited maximum balance. A minimum balance cannot be specified, and the Cash Surplus Account and Cash Deficit Account orders cannot be changed.

**(v2015.05) Interest on Excess Mkt. Securities**

Pretax rate or dollar amount of interest you can expect to earn on Excess Marketable Securities (v2015), such as government securities and certificates of deposit.

Interest on Excess Marketable Securities (v2015.05) is input in history and forecast periods. The default forecast method for Interest on Excess Marketable Securities (v2015.05) is as a Percent of Prior Period Excess Marketable Securities (v2015). You can also use the Percent of Another Account or the Percent of Average Account forecast methods.

**(v2015.09) Balance Correction Excess Market Securities**

This account, calculated in all periods, receives amounts, generated by the balancing routine in Strategic Finance, that must make the funds flow balance (sources and uses of funds) in forecast periods.
(v2017.00) Total Marketable Securities

(Increase in Total Marketable Securities (v2017.01))

Balance Sheet account sums the two marketable securities accounts in:

(v2010.00) Marketable Securities + (v2015.00) Excess Marketable Securities

= (v2017.00) Total Marketable Securities

(v2020.00) Accounts Receivable

(Increase in Accounts Receivable (v2020.01))

Accounts Receivable (v2020.00) are accounts that the company expects debtors to pay within one year. Factors determining Accounts Receivable (v2020.00): volume of Sales (v1000), proportion of sales made on account (versus cash), company credit policy, and customers' financial health.

By entering the Increase in Accounts Receivable (v2020.01) as a Percent of Change in Sales (v1000), the default forecast method, you can account for the fact that additional investments in this working capital account usually are necessary for sales growth.

(v2030.00) Allowance for Doubtful Accounts

(Increase in Allowance for Doubtful Accounts (v2030.01))

This Balance Sheet account represents the estimated amount of Accounts Receivable (v2020) that you cannot collect.

(v2035.00) Net Accounts Receivable

(Increase in Net Accounts Receivable (v2035.01))

Balance Sheet account nets Accounts Receivable (v2020) and uncollectable amounts. The formula:

(v2020.00) Accounts Receivable - (v2030.00) Allowance for Doubtful Accounts

= (v2035.00) Net Accounts Receivable

(v2040.00) Inventory

(Increase in Inventory (v2040.01))

This account on the Balance Sheet represents:
1. For manufacturing firms: the total of Raw Materials, Work in Progress, and Finished Goods, recorded at the lower of cost or market value. (Or, using the Financial Accounts view, you can define subaccounts for each category.)

2. For non-manufacturing firms: total purchases

By entering the Increase in Inventory (v2040.01) as a Percent of Change in Sales (v1000), the default forecast method, you can account for the fact that additional investments in working capital usually are necessary to support sales growth. If you prefer, select the alternative forecast method, Turns, and enter your forecast data as an inventory turnover rate. Or select the Days forecast method and enter the number of inventory days. In both cases, specify the Associated Account as Cost of Goods Sold (v1040), or a subaccount of this account denoting goods purchased.

**(v2050.00) Notes Receivable**

(Increase in Notes Receivable (v2050.01))

Face value of outstanding notes that the company expects to collect within one year. Notes Receivable (v2050.00) usually differs from trade accounts in two ways:

1. Notes Receivable (v2050.00) are evidenced by a formal promissory note, whereas Accounts Receivable (v2020) involve only an informal promise to pay.
2. Notes Receivable (v2050.00) often earn interest, whereas Accounts Receivable (v2020) usually do not.

Any interest income from Notes Receivable (v2050.00) can be entered into Other Interest Income (v1220).

**(v2060.00) Prepaid Expenses**

(Increase in Prepaid Expenses (v2060.01))

Advance payments for future services. Examples of Prepaid Expenses (v2060.00) include rent and insurance premiums paid in advance.

**(v2070.00) Intercompany Current Assets**

(Increase in Intercompany Current Assets (v2070.01))

Carrying accounts that often are maintained between companies within a consolidated group. Depending on funding policies of the parent company, the balance may consistently be in a net asset or net liability position. The position may be represented by using Intercompany Current Assets (v2070.00) or Intercompany Current Liabilities (v2540).
(v2080.00) Current Deferred Tax Assets

(Increase in Current Deferred Tax Asset (v2080.01))
Temporary differences may lead to recording a Deferred Tax Asset (v2350); that is, a future expected tax benefit. The portion of the tax benefit that reverses within a year is a current asset, recorded in the Current Deferred Tax Asset (v2080.00) account.

See “(v2510.05 Interest on Current Portion Long-Term Debt” on page 452.

(v2090.00) Other Current Assets—Operating

(Increase in Other Current Assets— Operating (v2090.01))
Balance Sheet account includes other assets, which you expect to turn into cash, sell, or exchange within the usual operating cycle of the company (typically one year), to exclude from the other current asset categories (v2000 through v2070).

To rename this account, go to the Financial Accounts view. If you rename this account, you should also rename the related funds flow account Increase in Other Current Assets (v2090.01).

(v2095.00) Other Current Assets—Non-Operating

(Increase in Other Current Assets—Non-Operating (v2095.01))
Nonoperating assets that you expect to turn into cash, sell, or exchange within the normal operating cycle (typically one year). Entries are not included in Cash Flow from Operations (v4100).

(v2100.00) Total Current Assets

(Increase in Total Current Assets (v2100.01))

(v2170.00) Gross Fixed Assets

For historical periods, enter the total Gross Fixed Assets in (v2170.00) as it appears on the Balance Sheet. In forecast periods, you can forecast Gross Fixed Assets (v2170.00) or Gross Retirements (v2170.03). Strategic Finance calculates Gross Fixed Assets (v2170.00) in forecast periods by default, where you are forecasting and entering Gross Retirements (v2170.03) as follows:

\[
(v2170.00) \quad \text{Gross Fixed Assets (prior period)}
\]

\[
+ \quad (v2170.01) \quad \text{Fixed Capital Investment}
\]

\[
- \quad (v2170.03) \quad \text{Gross Retirements}
\]

\[
= \quad (v2170.00) \quad \text{Gross Fixed Assets (current period)}
\]
or you can forecast and enter the ending balance for Gross Fixed Assets (v2170.00) and Gross Retirements (v2170.03) is calculated:

\[
(v2170.00) \quad \text{Gross Fixed Assets (prior period)} \\
+ \quad (v2170.01) \quad \text{Fixed Capital Investment} \\
- \quad (v2170.00) \quad \text{Gross Fixed Assets (current period)} \\
= \quad (v2170.03) \quad \text{Gross Retirements}
\]

You must enter Fixed Capital Investment (v2170.01) and Gross Retirements (v2170.03) or Fixed Capital Investment (v2170.01) and Gross Fixed Assets (v2170.00). Strategic Finance calculates the remaining account.

**(v2170.01) Fixed Capital Investment**

This account represents total Fixed Capital Investment (v2170.01) for both new and replacement equipment included in Gross Fixed Assets (v2170). Use this account to enter all fixed capital investment (as listed in the Investing Cash Flow section of most FASB Cash Flow Statements).

**(v2170.03) Gross Retirements**

Reductions in Gross Fixed Assets (v2170) resulting from assets scrapped, retired, or sold. In cases in which assets were sold, you can enter the sale proceeds in Proceeds from Asset Sales (v4000) in the forecast periods.

**(v2190.00) Accumulated Depreciation**

For historical periods, enter the total Accumulated Depreciation as it appears on the Balance Sheet. In forecast periods, you can forecast Accumulated Depreciation (v2190.00) or Accumulated Depreciation on Retirements (v2190.03). Strategic Finance calculates Accumulated Depreciation (v2190.00) in forecast periods by default, where you are forecasting and entering Accumulated Depreciation on Retirements (v2190.03) as follows:

\[
(v2190.00) \quad \text{Accumulated Depreciation (prior period)} \\
+ \quad (v2190.01) \quad \text{Depreciation Expense} \\
- \quad (v2190.03) \quad \text{Accumulated Depreciation on Retirements} \\
= \quad (v2190.00) \quad \text{Accumulated Depreciation}
\]

or you can forecast and enter the ending balance for Accumulated Depreciation (v2190.00) and Accumulated Depreciation on Retirements (v2190.03) is calculated:

\[
(v2190.00) \quad \text{Accumulated Depreciation (prior period)} \\
+ \quad (v2190.01) \quad \text{Depreciation Expense} \\
- \quad (v2190.00) \quad \text{Accumulated Depreciation}
\]
You must enter Depreciation Expense (v2190.01) and Accumulated Depreciation on Retirements (v2190.03) or Depreciation Expense (v2190.01) and Accumulated Depreciation (v2190.00). Strategic Finance calculates the remaining account.

**(v2190.01) Depreciation Expense (Funds)**

The key depreciation account in Strategic Finance must be entered in historical and forecast periods. This account is used on the Balance Sheet to calculate Accumulated Depreciation (v2190.00) and also on the Cash Flow Statement as an adjustment to Net Income (v1750).

Any depreciation expense amount entered on the Income Statement into accounts such as Depreciation Expense (v1110), Cost of Goods Sold (v1040) or SG&A Expense (v1080), is used in calculations on the Income Statement only and is not included in calculations on the Cash Flow Statement.

The default forecast method for Depreciation Expense (Funds) (v2190.01) is as a Percent of Prior Period Gross Fixed Assets (v2170).

**(v2190.03) Accumulated Depreciation on Retirements**

This account represents the total accumulated depreciation for an asset that is being retired or sold. The default forecast method for this account is as a percent of Gross Retirements (v2170.03).

**(v2200.00) Net Fixed Assets**

(Increase in Net Fixed Assets (v2200.01))

Balance Sheet account deducts Accumulated Depreciation (v2190) from Gross Fixed Assets (v2170):

\[
\begin{align*}
(v2170.00) & \quad \text{Gross Fixed Assets} \\
- & \quad (v2190.00) \quad \text{Accumulated Depreciation} \\
\end{align*}
\]

\[
= (v2200.00) \quad \text{Net Fixed Assets}
\]

**(v2380.00) Deferred Tax Asset**

(Increase in Deferred Tax Asset (v2380.01))

Temporary differences may lead to the recording of a Deferred Tax Asset (v2380.00) which is a future expected tax benefit. The portion of the tax benefit that reverses after a year is a non-current asset, recorded in the Deferred Tax Asset (v2380.00) account.

See “(v1660.00) Deferred Provision for Income Taxes” on page 435.
(v2390.00) Land

(Additions to Land (v2390.01))

The total acquisition cost of all Land (v2390.00) plus non-depreciable land improvements. Additions to Land (v2390.01) are assumed to affect the ongoing productive capacity of the company, much like Fixed Capital Investment (v2170.01). As a result, Additions to Land (v2390.01) is included in the calculation of Cash Flow from Operations (v4100).

(v2400.00) Goodwill

Includes goodwill and other intangible assets for which amortization is not deductible for federal income tax purposes. All other intangible assets should be classified as Other Intangibles (v2410). These assets include mailing lists, organization costs, licenses, franchises, and permits (for exploration, import, export, and construction).

Using the default forecast method, enter only the annual additions to this account in the forecast period. Strategic Finance calculates the balance, after deducting amortization charges, which you enter in Amortization of Goodwill (v2400.03):

\[
\begin{align*}
(v2400.00) & \text{ Goodwill (prior period)} \\
+ & \ (v2400.01) \text{ Additions To Goodwill} \\
- & \ (v2400.03) \text{ Amortization of Goodwill} \\
= & \ (v2400.00) \text{ Goodwill}
\end{align*}
\]

(v2400.01) Additions to Goodwill

This funds flow account represents additions to the Goodwill account (v2400) over the last year. Goodwill results from the purchase of identifiable assets at a cost exceeding the fair-market value. Additions to Goodwill (v2400.01) most commonly occur as a result of a merger or acquisition in which the purchase method of accounting is used. If the buyer pays a price that exceeds the fair value of the seller’s revalued assets, the excess must be recorded as Goodwill (v2400) on the Balance Sheet of the combined companies.

(v2400.03) Amortization of Goodwill

This Balance Sheet account is the period-by-period allocation of the cost of the intangible assets included in Goodwill (v2400). Goodwill must be amortized over a period no longer than 40 years. Because this amortization is deducted for computing Operating Profit (v1150), but is not deductible for federal income tax purposes, it is added back to Earnings Before Taxes (EBT) (v1600.00) to arrive at Taxable Income.

The amount of Amortization of Goodwill (v2400.03) entered into the forecast period decreases the Balance Sheet amount of Goodwill (v2400).
(v2410.00) Other Intangibles

Goodwill (v2400) includes goodwill and other intangible assets for which the amortization is not deductible for federal income tax purposes. Classify all other intangible assets—accounts such as mailing lists, organization costs, licenses, franchises, and permits (for exploration, import, export, and construction—as Other Intangibles (v2410.00).

Using the default forecast method, enter only the annual additions to this account in the forecast period. Strategic Finance calculates the balance after deducting amortization charges, which you enter in Amortization of Other Intangibles (v2410.03):

\[
\begin{align*}
(v2410.00) \quad & \text{Other Intangibles (prior period)} \\
+ \quad & (v2410.01) \quad \text{Additions to Other Intangibles} \\
- \quad & (v2410.03) \quad \text{Amortization of Other Intangibles} \\
= \quad & (v2410.00) \quad \text{Other Intangibles}
\end{align*}
\]

(v2410.01) Additions to Other Intangibles

This account represents the additions to the Other Intangibles account (v2410) from the prior period.

(v2410.03) Amortization of Other Intangibles

This account refers to the period-by-period allocation of the acquisition cost of intangibles other than Goodwill (v2400). Typically, these assets have a limited useful life, and their amortization is deductible for federal income tax purposes. Entry of Amortization of Other Intangibles (v2410.03) in the forecast period automatically reduces the amount of Other Intangibles (v2410) on the Balance Sheet.

Examples of intangibles:
- Copyrights, patents, and trademarks
- Organization costs
- Franchises
- Capitalized advertising costs
- Mailing lists
- Licenses
- Permits (for exploration, import/export, construction)
- Leases

(v2420.00) Investments: Equity Method

(Increase in Investments: Equity Method (v2420.01))
This balance sheet account represents investments in companies that are reported using the Equity Method (specified by APB 18). This method applies when the company:

1. Owns at least 20% but not more than 50% of the subsidiary's stock; and,
2. Intends to hold the investment for years.

In the forecast periods, by default, Strategic Finance forecasts this account as the Increase in Investments: Equity Method (v2420.01):

\[
\begin{align*}
\text{(v2420.00)} & \quad \text{Investments: Equity Method (prior period)} \\
+ & \quad \text{(v2420.01)} \quad \text{Increase in Investments: Equity} \\
+ & \quad \text{(v2420.03)} \quad \text{Earnings from Investments: Equity} \\
- & \quad \text{(v2420.05)} \quad \text{Dividends from Subsidiaries} \\
= & \quad \text{(v2420.00)} \quad \text{Investments: Equity Method}
\end{align*}
\]

**(v2420.03) Earnings from Investments: Equity Method**

Nonoperating Income Statement item accounts for the after-tax earnings from investments in unconsolidated subsidiaries in which the investing company holds at least 20% but less than 50% of the stock. Under the Equity Method, specified in APB 18, the investing company's proportionate share of the subsidiary's net income is included in the investing company's Net Income (v1750). For reporting purposes, the Balance Sheet investment account, Investments: Equity Method (v2420), is increased by earnings recognized in income. Enter Earnings from Investments: Equity Method (v2420.03) as an after-tax amount.

Notice that a corporation that accounts for an investment using the Equity Method receives only a portion of its total earnings in cash (as dividends).

**(v2420.05) Dividends from Subsidiaries**

Cash dividends received from investments in companies for which the Equity Method of accounting is used.

Under this method, the company's initial investment is recorded at acquisition cost. In each period, the account value increases automatically by the amount in Earnings from Investments: Equity (v2420.03) on the Balance Sheet, the account that recognizes the company's proportionate share of the earnings of the stock-issuing company.

Dividends recorded in Dividends from Subsidiaries (v2420.05), reduce the balance in this investments account.

Further adjustment may be necessary to ensure that the account balance reflects the lower of historic cost or market value as required by APB 18.

**(v2430.00) Investments: Cost Method**

(Increase in Investments: Cost Method (v2430.01))
This Balance Sheet account represents long-term investments in companies that are reported using the Cost Method. This method applies when the investing company lacks “significant influence,” presumably holding less than 20% of the stock, and intends to hold the investment for years.

The investing company reports these investments based on acquisition cost or market value, whichever is lower. If the investment is in the form of non-equity or non-marketable securities, it is recorded at acquisition cost.

Any dividends from these investments can be entered in Dividends from Investments: Cost (v1190).

**(v2440.00) Other Assets**

(Increase in Other Assets (v2440.01))

Long-term assets to exclude from other long-term asset accounts (v2170 through v2430)

To rename this account, use the Financial Accounts view. If you rename this account, you should rename the related funds flow account Increase in Other Assets (v2440.01).

**(v2460.00) Long-Term Funding Asset**

(Increase in Long-Term Funding Asset (v2460.01))

Another funding asset account that appears as a non-current asset. Use this account to model intercompany funding or long-term assets that might be liquidated for funding purposes. Long-Term Funding Asset (v2460.00) can be selected as a Cash Surplus and/or Deficit account within Funding Options.

**(v2460.05) Interest on Long-Term Funding Asset**

Pretax rate or dollar amount of interest you can expect to earn on Long-Term Funding Asset (v2460).

Interest on Long-Term Funding Asset (v2460.05) is input in history and forecast periods. The default forecast method for Interest on Long-Term Funding Asset (v2460.05) is as a Percent of Prior Period Long-Term Funding Asset (v2460).

**(v2460.06) Minimum Long-Term Funding Asset**

This account allows you to specify a minimum balance to be maintained for Long-Term Funding Asset (v2460) in all periods. If Long-Term Funding Asset (v2460) is selected in Funding Options and Specify Minimum Balance is not selected in Advanced Options, amounts entered in this account do not affect other calculations or accounts in your model.
(v2460.07) Maximum Long-Term Funding Asset

(Increase in Maximum Long-Term Funding Asset (v2460.08))

Used to specify the maximum balance for the Long-Term Funding Asset to reach when Funding Options is accumulating a Cash Surplus.

(v2460.09) Balance Correction Long-Term Funding Asset

This account, calculated in all periods, receives amounts, generated by the balancing routine in Strategic Finance, that are required to make the funds flow balance.

(v2470.00) Non-Current Operating Asset

(Increase in Non-Current Operating Asset (v2470.01))

This account, which can be used to represent operating long-term assets, is included in the Cash Flow from Operations (v4100) and as a result in the calculation of Shareholder Value (v5070).

(v2480.00) Total Non-Current Assets

(Increase in Total Non-Current Assets (v2480.01))

This account, which sums non-current assets, is calculated as:

\[ \text{(v2200.00) Net Fixed Assets} + \text{(v2380.00) Deferred Tax Asset} + \text{(v2390.00) Land} + \text{(v2400.00) Goodwill} + \text{(v2410.00) Other Intangibles} + \text{(v2420.00) Investments: Equity Method} + \text{(v2430.00) Investments: Cost Method} + \text{(v2440.00) Other Assets} + \text{(v2460.00) Long-Term Funding Asset} + \text{(v2470.00) Non-Current Operating Assets} = \text{(v2480.00) Total Non-Current Assets} \]

(v2490.00) Total Assets

(Increase in Total Assets (v2490.01))

Balance Sheet account consists of the sum of all current and non-current assets:

\[ \text{(v2100.00) Total Current Assets} + \text{(v2480.00) Total Non-Current Assets} = \text{(v2490.00) Total Assets} \]
Total Assets (v2490.00)

Best evaluated by analyzing the changes in turnover rates of individual asset categories such as Fixed Asset Turnover (v6080), Inventory Turnover (v6075), and Days in Receivables (v6065). Total Assets (v2490) is based on historical costs and depreciation policy. A high Total Asset Turnover (v6085.00) ratio does not mean you could buy replacement assets today and achieve the same efficiency.

Accounts Payable (v2500.00)

Accounts Payable (v2500.00), also referred to as “Trade Accounts Payable,” are current liabilities. They represent debts that must be paid within the next year.

By entering the Increase in Accounts Payable (v2500.00) (a working capital account) as a Percent of the Change in Sales (v1000), you can account for the fact that the additional investments in working capital necessary to support sales growth usually can be partly financed with trade credit.

You can select the alternative forecast method, Days, and enter your forecast data in terms of Days in Payables, where the Associated Account is Cost of Goods Sold (v1040), or a subaccount of Cost of Goods Sold (v1040) denoting purchases.

Current Portion of Long-Term Debt (v2510.00)

Portion of bonds, mortgage notes, and other long-term scheduled debt that matures (that is, for which some principal must be repaid) during the next fiscal year. This account refers only to repayment of the principal (face value), not to interest.

If part of a long-term obligation matures within the next year (such as serial bonds repaid in annual installments), classify the maturing portions in this account and include the balance of the obligation under Long-Term Debt: Scheduled (v2660).

Interest on Current Portion Long-Term Debt (v2510.05)

Interest expense you expect the company to pay on the Current Portion of Long-Term Debt (v2510).

Interest on Current Portion Long-Term Debt (v2510.05) is input in history and forecast periods. The default forecast method for Interest on Current Portion Long-Term Debt (v2510.05) is as a Percent of Prior Period Current Portion Long-Term Debt (v2510).
(v2520.00) Notes Payable

(Increase in Notes Payable (v2520.01))

Notes Payable (v2520) are current liabilities (payable within one year), including:
1. Trade Notes: Unpaid face amount of promissory notes for goods and services
2. Short-Term Loan Notes: Face amount of loans payable within one fiscal year

In historical periods, enter a currency amount. In forecast periods, enter the currency amount of Notes Payable (v2520.00) or choose another forecast method. For example, you can enter a Freeform formula to forecast the Maximum Notes Payable (v2520.07).

(v2520.05) Interest on Notes Payable

Interest expense you expect the company to pay on Notes Payable (v2520).

Interest on Notes Payable (v2520.05) is input in history and forecast periods. The default forecast method for Interest on Notes Payable (v2520.05) is as a Percent of Prior Period Notes Payable (v2520).

(v2520.06) Minimum Notes Payable

Allows you to specify a minimum balance to be maintained for Notes Payable (v2520) in all periods, if Notes Payable (v2520) is specified as a Revolver in Funding Options. If Notes Payable (v2520) is selected as a Cash Deficit account in Funding Options, and Specify minimum balance is selected in Advanced Options, Notes Payable (v2520) does not fund below the specified minimum balance in this account. If this setting in Advanced Options is not selected, and Notes Payable (v2520) is not specified as a Revolver in Funding Options, amounts entered in this account do not affect other calculations or accounts in your model.

(v2520.07) Maximum Notes Payable

(Increase in Maximum Notes Payable (v2520.08))

Used to specify the maximum balance for Notes Payable (v2520) to reach when Funding Options is accumulating a Cash Surplus and Notes Payable (v2520) is specified as a Revolver.

(2520.09) Balance Correction Notes Payable

This account, calculated in all periods, receives amounts, generated by the balancing routine in Strategic Finance, that are required to make the funds flow balance (sources and uses of funds) in the forecast periods.

(v2525.00) Accrued Interest

(Increase in Accrued Interest (v2525.01))
The Increase in Accrued Interest (v2525.01) is included in Non-Operating Sources (v4110) on the Cash Flow Statement and in Cash bef. External Financing (v4440) on the Indirect Cash Flow Statement.

**(v2590.00) Other Current Liabilities—Operating**

*(Increase in Other Current Liabilities—Operating (v2590.01))*

Use this operating account to include current liabilities that you do not want to include in the other current liability accounts. This account can be useful for incorporating accounts such as:

- Accrued liabilities
- Payroll taxes payable
- Unremitted payroll withholding and sales taxes
- Advances from customers
- Rent received in advance

To rename this account, use the Financial Accounts view. If you do rename this account, you should also rename the related funds flow account Increase in Other Current Liabilities—Operating (v2590.01).

**(v2530.00) Income Taxes Payable**

*(Increase in Income Taxes Payable (v2530.01))*

The current portion of the company’s income tax provision that has not been remitted. It is an operating account.

**(v2540.00) Intercompany Current Liabilities**

*(Increase in Intercompany Current Liabilities (v2540.01))*

The carrying accounts often maintained between companies within a consolidated group. Depending on funding policies of the parent company, the balance may consistently be in a net asset or net liability position. The position may be represented by using Intercompany Current Assets (v2070) or Intercompany Current Liabilities (v2540.00).

**(v2580.00) Current Deferred Tax Liability**

*(Increase in Current Deferred Tax Liability (v2580.01))*

Portion of the tax benefit attributable to temporary differences that reverse within a year is a current liability, such as installment sales, recorded in Current Deferred Tax Liability (v2580.00).

See “*(v1660.00) Deferred Provision for Income Taxes*” on page 435.
(v2595.00) Other Current Liabilities—Non-Operating

This account represents nonoperating liabilities you expect to owe within the normal operating cycle of the company (typically one year). Entries to this amount are not included in Cash Flow from Operations (v4100), and as a result the calculation of Shareholder Value (v5070).

(v2600.00) Total Current Liabilities

(Increase in Total Current Liabilities (v2600.01))

Balance Sheet account consists of the sum of Current Liabilities:

(v2500.00) Accounts Payable
+ (v2510.00) Current Portion of Long-Term Debt
+ (v2520.00) Notes Payable
+ (v2525.00) Accrued Interest
+ (v2530.00) Income Taxes Payable
+ (v2540.00) Intercompany Current Liabilities
+ (v2580.00) Current Deferred Tax Liability
+ (v2590.00) Other Current Liabilities
+ (v2595.00) Other Current Liabilities - Non–Operating

= (v2600.00) Total Current Liabilities

(v2660.00) Long-Term Debt: Scheduled

(Increase in Long-Term Debt: Scheduled (v2660.01))

The face value of long-term obligations such as bonds, term debt, mortgages, and capitalized lease obligations. This account should not include long-term debt that matures during the current fiscal year; enter that portion in Current Portion Long-Term Debt (v2510).

In history, input your actual balances. In forecast periods, you can forecast the period-by-period outstanding balance or the increase in the balance of Long-Term Debt: Scheduled (v2660).

This account can be used as a term loan or revolving credit facility (Revolver) and can be adjusted in Funding Options.

(v2660.03) Non-Cash Interest on Long-Term Debt: Scheduled

Non-operating account used to calculate the noncash portion of interest expense on scheduled debt account. Noncash interest typically takes the form of zero-coupon (deep-discount) debt or payments in kind (PIKs). Enter this account as a rate or as a currency amount, depending on the forecast method you choose.
Amounts entered into this account accrete to Long-Term Debt: Scheduled (v2660). For interest coverage ratio purposes, this account is ignored, because coverage ratios usually reflect cash-on-cash coverage, not accruals.

**(v2660.06) Minimum Long-Term Debt: Scheduled**

Allows you to specify a minimum balance to be maintained for Long-Term Debt: Scheduled (v2660) in all periods, if Long-Term Debt: Scheduled (v2660) is specified as a Revolver in Funding Options. If Long-Term Debt: Scheduled (v2660) is selected as a Cash Deficit account in Funding Options, and Specify Minimum Balance is selected in Advanced Options, Long-Term Debt: Scheduled (v2660) does not fund below the specified minimum balance in this account. If this setting in Advanced Options is not selected, and Long-Term Debt: Scheduled (v2660) is not specified as a Revolver in Funding Options, amounts entered in this account do not affect other calculations or accounts in your model.

**(v2660.07) Maximum Long-Term Debt: Scheduled**

(Increase in Maximum Long-Term Debt: Scheduled (v2660.08))

Used to specify the maximum balance for Long-Term Debt: Scheduled (v2660) to reach when it is specified as a Revolver in Funding Options.

**(v2660.09) Balance Correction Long-Term Debt: Scheduled**

This account, calculated in all periods, receives amounts, generated by the balancing routine in Strategic Finance, that must make the funds flow balance (sources and uses of funds) in the forecast period.

**(v2690.00) Long-Term Debt: Excess**

(Increase in Long-Term Debt: Excess (v2690.01))

The last source of funds in the case of a cash deficit. When all sources of funding (such as revolvers and funding assets) are exhausted, Funding Options borrows from Long-Term Debt: Excess (v2690.01), a revolving account with an infinite ceiling. In the event of a cash surplus, this account is repaid first. Most attributes related to this account are unchangeable. Long-Term Debt: Excess (v2690.01) has an unlimited maximum; a minimum balance cannot be specified; and the Cash Surplus Account and Cash Deficit Account orders cannot be changed within Funding Options.

**(v2690.09) Balance Correction Long-Term Debt: Excess**

This account, calculated in all periods, receives amounts, generated by the balancing routine in Strategic Finance, that are required to make the funds flow balance (sources and uses of funds) in the forecast period.
(v2700.00) **Total Long-Term Debt**

(Increase in Total Long-Term Debt (v2700.01))

Summary Balance Sheet account represents the total face value of all long-term debt instruments (bonds, mortgages, long-term notes, etc.). Total Long-Term Debt excludes the Current Portion of Long-Term Debt (v2510). This is account is calculated as follows:

- (v2660.00) Long-Term Debt: Scheduled
- + (v2690.00) Long-Term Debt: Excess

= (v2700.00) Total Long-Term Debt

(v2760.00) **Other Deferrals**

(Increase in Other Deferrals (v2760.01))


(v2770.00) **Deferred Income Taxes**

(Increase in Deferred Income Taxes (v2770.01))

A deferred income tax liability results from timing differences in the recognition of some revenue and expense accounts for book and tax purposes.

As a result of these timing differences, the total tax expense reported on the Balance Sheet may not equal the income tax paid during the year. The difference between the accounts equals Deferred Income Taxes (v2770.00), which includes changes in current and non-current deferred tax assets and liabilities for that year.

(v2780.00) **Minority Interest**

(Increase in Minority Interest (v2780.01))

If the company you are analyzing (Company A) owns more than 50% but less than 100% of another company (Company B), it typically consolidates the financial statements of the two entities. To recognize that a portion of the combined company’s income and assets do not belong to the shareholders of Company A, Minority Interest accounts appear on both the Income Statement (v1720), as a deduction, and on the Balance Sheet (v2780.00), as an equity account. This account should be entered as an after-tax amount.

For example:

Assume Company A owns 60% of Company B, and Company A produces consolidated financial statements combining the two companies. All of Company B’s earnings ($20 million) and equity ($100 million) are included in Company A’s Income Statement and Balance Sheet. But because
Company B’s other shareholders own 40% of the earnings and equity contributed by Company B, Minority Interest (v1720, v2780.00) must be recorded as follows:

Minority Interest (v1720):
40% * $20 million = $8 million

Minority Interest (v2780.00):
40% * $100 million = $40 million

**(v2785.00) Non-Current Operating Liability**

(Increase in Non-Current Operating Liability (v2785.01))

This account, which can be used to represent operating long-term liabilities, is included in the Cash Flow from Operations (v4100), and, as a result, in the calculation of Shareholder Value (v5070).

**(v2790.00) Other Liabilities**

(Increase in Other Liabilities (v2790.01))

You can use these nonoperating accounts to include additional long-term liabilities that you want to exclude from other long-term liability accounts.

To rename Other Liabilities (v2790.00), use the Customize Accounts option. If you rename the account, rename the related funds flow account Increase in Other Liabilities (v2790.01).

**(v2795.00) Total Non-Current Liabilities**

(Increase in Total Non-Current Liabilities (v2795.01))

Balance Sheet account is calculated as:

\[
\begin{align*}
(v2700.00) & \quad \text{Total Long-Term Debt} \\
+ (v2760.00) & \quad \text{Other Deferrals} \\
+ (v2770.00) & \quad \text{Deferred Income Taxes} \\
+ (v2785.00) & \quad \text{Non-Current Operating Liability} \\
+ (v2790.00) & \quad \text{Other Liabilities} \\
= (v2795.00) & \quad \text{Total Non-Current Liabilities}
\end{align*}
\]

**(v2800.00) Total Liabilities**

(Increase in Total Liabilities (v2800.01))

Calculated Balance Sheet account represents the sum of all Current and Long-Term Liabilities.
(v2600.00) Total Current Liabilities
+ (v2795.00) Total Non-Current Liabilities
= (v2800.00) Total Liabilities

**(v2820.00) Preferred Stock**

Total cash received for preferred shares, including:

1. The par value (“face” or “stated” value) before shares are issued
2. Any additional paid-in capital

For example, if a company issues 1,000 preferred shares with a par value of $20 per share and sells them at $25 per share, it would record the Preferred Stock at $25,000 ($20,000 par value plus $5,000 additional paid-in capital). Preferred Stock generally is treated as debt in Strategic Finance because, in the event of liquidation, holders of preferred stock, like holders of debt, are given priority over dividends and assets. Therefore, Preferred Stock (v2820.00) is:

1. Subtracted with other debt accounts from Corporate Value (v5060) to compute Shareholder Value (v5070); and
2. Included with debt accounts, in the Debt/Equity Ratio (v6040) and in calculating Unused Debt Capacity (v3560).

**(v2820.01 Proceeds from the Sale of Preferred Stock**

Total cash received from the issuance of additional Preferred Stock (v2820). The total cash received equals the par value of issued stock plus additional paid-in capital.

**(v2820.06 Minimum Preferred Stock**

Used for funding options. Enter a minimum, or lower-bound, value for preferred stock. To not calculate a number below this value, select Minimum on Common Tab of the Funding Options dialog.

**(v2820.07 Maximum Preferred Stock**

A funding options account calculated in Strategic Finance in all forecasted periods. This account requires a maximum, or upper-bounded, value. The Maximum value can be entered in on the input sheet in the main account, otherwise known as the xxx.00.xxxx account. When calculated, the maximum value appears in this xxx.07.xxxx account. The Maximum Preferred Stock account displays the input entered in the xxx.00.xxxx account.
(v2820.09 Balance Correction Preferred Stock)
This account, calculated in all periods, receives amounts, generated by the balancing routine in Strategic Finance, that must make the funds flow balance (sources and uses of funds) in the forecast periods.

(v2830.00) Common Stock (Par Value)
Par value of stock (also called “face value” or “stated value”), which is established before it is issued.
For example, if a company issues 2,000 shares of Common Stock with par value of $15 per share and sells them at $20, it would record Common Stock of $30,000 and Additional Paid-In Capital (v2832.00) of $10,000. You can use this account to forecast additions to and reductions of common equity in forecast periods.

(v2830.01 Proceeds from the Sale of Common Stock and Paid-in Capital)
Total cash received from the issuance of additional Common Stock and Paid-in Capital (v2830).
The total cash received equals the par value of the issued stock plus additional paid-in capital.

(v2832.00) Additional Paid in Capital (Common Stock)
Additional Paid in Capital is the total value of common stock less the total par value of common stock. It is generally defined as the total market value of common stock that has appreciated beyond the face value of the stock.

(v2835.00) Total Common Stock
Total Common Stock is a calculated account that sums the Common Stock at Par value (v2830.00) with the Common Stock for Additional Paid in Capital (v2832.00).

(v2836.00) Treasury Stock
Par value of Common Stock that is issued simultaneously and has been repurchased by the company. This value has not been retired but is being held by the company. Similar to Common Stock, there is an Additional Paid in Capital due to Treasury Stock (v2838.00).

(v2840.00) Common Stock (Net of Treasury)
Calculated account in Strategic Finance. It indicates how much larger (smaller) the value of common stock is to treasury stock. The calculation:
Common Stock (at Par Value) (v2830.00)
+ Common Stock Additional Paid in Capital (v2832.00)
- Treasury Shares (Par Value) (v2836.00)
+ Treasury Shares Additional Paid in Capital (v2838.00)
= Common Stock (Net of Treasury) (v2840.00)

**(v2850.00) Retained Earnings**

(Increase in Retained Earnings (v2850.01))

This calculated equity account on the Balance Sheet represents the Net Income (v1750) accumulated over the life of a corporation, less cumulative dividends and adjustments. In history, Retained Earnings (v2850.00) is calculated as Total Assets (v2490) less the sum of all liabilities (v2800) and equities other than Retained Earnings (v2850.00).

In historical periods, this account is calculated as:

- (v2490.00) Total Assets
- (v2800.00) Total Liabilities
- (v2780.00) Minority Interest
- (v2820.00) Preferred Stock
- (v2840.00) Common Stock (Net of Treasury)
- (v2870.00) Currency Translation Adjustments
- (v2880.00) Other Equity

= (v2850.00) Retained Earnings

In forecast periods, Retained Earnings (v2850.00) is calculated as:

- (v2850.00) Retained Earnings (prior period)
+ (v1750.00) Net Income
- (v1800.00) Preferred Dividends
- (v1900.00) Common Dividends
+ (v3000.00) Funds Flow Adj: Source
- (v3020.00) Funds Flow Adj: Use

= (v2850.00) Retained Earnings

These methods of determining Retained Earnings should yield the same result due to the interrelationships among the Balance Sheet, Funds Flow Statement, and the Income Statement. They may yield different results in historical periods if a transaction that affects equity but does not flow through the Balance Sheet is reflected on the historical financials you are replicating.
If this occurs, a warning message is printed on your reports indicating an out-of-balance condition. You will get this message if the out-of-balance condition in history is due to a data-entry error.

**(v2865.00) Prior Retained Earnings**

The prior period Retained Earnings on the Statement of Retained Earnings.

**(v2867.00) Retained Earnings Variance**

Calculates variances in beginning and ending Retained Earnings (v2850) other than Net Income (v1750), Dividends (v1800, v1900), and Funds Flow Adjustments (v3000, v3020). It appears on the Statement of Retained Earnings. This account can be used for troubleshooting a Funds Flow out-of-Balance error and is calculated as follows:

\[
(v2850.00) \quad \text{Retained Earnings (prior period)} \\
+ (v1750.00) \quad \text{Net Income} \\
- (v1800.00) \quad \text{Preferred Dividends} \\
- (v1900.00) \quad \text{Common Dividends} \\
+ (v3000.00) \quad \text{Funds Flow Adj: Source} \\
- (v3020.00) \quad \text{Funds Flow Adj: Use} \\
- (v2850.00) \quad \text{Retained Earnings} \\
= (v2870.00) \quad \text{Retained Earnings Variance}
\]

**(v2870.00) Currency Translation Adjustments**

(Increase in Currency Translation Adjustments (v2870.01))

Account for the effect of nonmonetary foreign currency translations using this account.

**(v2880.00) Other Equity**

(Increase in Other Equity (v2880.01))

This account can be used to account for other equity items such as: Treasury Stock and Pension Liability Adjustments.

To rename this account, use the Financial Accounts view. If you rename this account, you should also rename the related funds-flow account Increase in Other Equity (v2880.01).
(v2890.00) Common Equity

No. of Common Shares Year End (v3400.00)

Capital Charge (BV * RROC) (v5730.00)

The Capital Charge is the amount, calculated by multiplying Adjusted Book Value in the prior period (v5725) by RROC (v5700), that a firm is charged for its invested capital.

(v2890.00) Common Equity

(Increase in Common Equity (v2890.01))

This Balance Sheet account is calculated as:

  (v2830.00)  Common Stock and Paid in Capital
+ (v2850.00)  Retained Earnings
+ (v2870.00)  Currency Translation Adjustments
+ (v2880.00)  Other Equity

= (v2890.00)  Common Equity

(v2895.00) Total Equity

(Increase in Total Equity (v2895.01))

Total Equity (v2895.01) is calculated as:

  (v2780.00)  Minority Interest
+ (v2820.00)  Preferred Stock
+ (v2890.00)  Common Equity

= (v2895.00)  Total Equity

(v2900.00) Total Liabilities and Equity

(Increase in Total Liabilities and Equity (v2900.01))

Calculated Balance Sheet account consists of the sum of all liability and equity accounts:

  (v2800.00)  Total Liabilities
+ (v2895.00)  Total Equity

= (v2900.00)  Total Liabilities and Equity
+ (v1240.00)  Total Interest Income

= (v1600.00)  Earnings Before Taxes
3000.xx.xxx to 3999.xx.xxx Accounts

Subtopics

- (v3000.00) Funds Flow Adjustment: Sources
- (v3008.00) Debt Schedule Interest Currency Translation Adjustments
- (v3010.00) Total Sources of Funds
- (v3020.00) Funds Flow Adjustment: Uses
- (v3030.00) Total Uses of Funds
- (v3040.00) Net Funds Flow Source (Use)
- (v3100.00) Tax Depreciation
- (v3110.00) Other Temporary Differences
- (v3120.00) Temporary Differences
- (v3130.00) Permanent Differences
- (v3140.00) Taxable Income
- (v3150.00) Tax Refund Due to Loss Carryforward
- (v3160.00) Tax Refund Due to Loss Carryback
- (v3205.00) Additions to Taxable Operating Profit
- (v3210.00) Taxable Operating Profit
- (v3220.00) Interest Tax Shield
- (v3225.00) Non-Operating Profit
- (v3230.00) Tax on Non-Operating Profit
- (v3235.00) Additions to Operating Income Taxes
- (v3240.00) Income Taxes on Operations
- (v3242.00) Unrealized Benefit of Tax Loss
- (v3245.00) Current Provision for Operating Income Taxes Before NOLs
- (v3250.00) Operating Tax Refund Due to Loss Carryforward
- (v3260.00) Operating Tax Refund Due to Loss Carryback
- (v3265.00) Additional Operating Tax Refund
- (v3270.00) Total Operating Tax Refund
- (v3275.00) Current Provision for Operating Taxes
- (v3290.00) Current Non-Operating Taxes
- (v3400.00) Common Shares Outstanding: Year End
- (v3410.00) Common Shares Outstanding: Wtd. Avg.
- (v3430.00) Potentially Dilutive Securities
- (v3450.00) Diluted EPS Adj. to Net Income
- (v3460.00) Number of Common Shares Issued: Year End
- (v3470.00) Number of Treasury Shares: Year-End
- (v3490.00) Transaction price for Common Shares
- (v3500.00) Debt Due Within One Year
- (v3510.00) Total Debt and Preferred Stock
- (v3520.00) Total Capital
- (v3525.00) Total Debt
- (v3550.00) Target Debt Capacity
- (v3552.00) Target Preferred Capacity
- (v3560.00) Unused Debt Capacity (UDC)
- (v3562.00) Unused Preferred Capacity
- (v3580.00) Unused Debt Capacity plus Marketable Securities
- (v3590.00) Total Cash Interest Expense

(v3000.00) Funds Flow Adjustment: Sources
This account directly affects the Retained Earnings (v2850) account and could throw your Funds Flow Statement out of balance.

**(v3008.00) Debt Schedule Interest Currency Translation Adjustments**

When Currency Translator is used with a Debt Schedule, this account sums .54 and .64 accounts and subtracts the total in the formula for Total Sources of Funds (v3010).

**(v3010.00) Total Sources of Funds**

This funds flow account consists of all sources of accounting “funds” for any period. The formula:

\[
\begin{align*}
(v1750.00) & \quad \text{Net Income} \\
- (v1170.00) & \quad \text{Gain on Sale of Assets} \\
- (v2420.03) & \quad \text{Earnings from Investments: Equity} \\
+ (v4000.00) & \quad \text{Proceeds from Sale of Assets} \\
+ (v2420.05) & \quad \text{Dividends from Subsidiaries} \\
+ (v2190.01) & \quad \text{Depreciation Expense: Funds Flow} \\
+ (v2400.03) & \quad \text{Amortization of Goodwill} \\
+ (v2410.03) & \quad \text{Amortization of Other Intangibles} \\
+ (v2780.01) & \quad \text{Change in Minority Interest} \\
+ (v2800.01) & \quad \text{Increase in Total Liabilities} \\
+ (v2820.01) & \quad \text{Proceeds from Sales of Preferred Stock} \\
+ (v2840.01) & \quad \text{Chg. in Common Stock (Net of Treasury)} \\
+ (v2880.01) & \quad \text{Increase in Other Equity} \\
+ (v2870.01) & \quad \text{Increase in Currency Translation Adjustments} \\
+ (v3000.00) & \quad \text{Funds Flow Adjustment: Sources} \\
\end{align*}
\]

= (v3010.00) Total Sources of Funds

**(v3020.00) Funds Flow Adjustment: Uses**

Funds not captured by alternative funds flow accounts.

This account directly affects the Retained Earnings (v2850) account and could throw your Funds Flow Statement out of balance.
(v3030.00) Total Uses of Funds

This funds flow account represents all uses of accounting funds. Total Uses of Funds (v3030.00) is calculated as follows:

+ (v2000.01) Increase in Cash
+ (v2017.01) Increase in Total Marketable Securities
+ (v2035.01) Increase in Net Accounts Receivable
+ (v2040.01) Increase in Inventory
+ (v2050.01) Increase in Notes Receivable
+ (v2060.01) Increase in Prepaid Expenses
+ (v2070.01) Increase in Intercompany Current Assets
+ (v2080.01) Increase in Current Deferred Tax Asset
+ (v2090.01) Increase in Other Current Assets — Operating
+ (v2095.01) Incr. in Other Current Assets — Non-Operating
+ (v2170.01) Fixed Capital Investment
+ (v2380.01) Increase in Deferred Tax Asset
+ (v2390.01) Additions to Land
+ (v2400.01) Additions to Goodwill
+ (v2410.01) Additions to Other Intangibles
+ (v2420.01) Increase in Investments: Equity Method
+ (v2430.01) Increase in Investments: Cost Method
+ (v2470.01) Increase in Non-Current Operating Asset
+ (v2440.01) Increase in Other Assets
+ (v2460.01) Increase in L-T Funding Asset
+ (v1800.00) Preferred Dividends
+ (v1900.00) Common Dividends
+ (v3020.00) Funds Flow Adjustment: Uses

= (v3030.00) Total Uses of Funds

(v3040.00) Net Funds Flow Source (Use)

The difference between total sources of funds and uses of funds, helpful when troubleshooting a funds-flow out-of-balance error in historical periods.
**(v3100.00) Tax Depreciation**

This account contains depreciation expense for tax purposes. Tax Depreciation (v3100.00) uses a Freeform formula in both history and forecast equal to Depreciation Expense (Funds) (v2190.01). To be considered in the calculation of taxable income, the difference between this account and Depreciation Expense: Funds (v2190.01), should be included in Other Temporary Differences (v3110).

**(v3110.00) Other Temporary Differences**

Differences between GAAP income and taxable income that are expected to reverse in future periods. The account is an input in all periods and can be forecast using a Freeform forecast method to incorporate them into this account.

**(v3120.00) Temporary Differences**

In historical periods, the amount is calculated using a Freeform formula, which can be adjusted; in the forecast periods, it is a calculated account.

In historical periods, the amount is calculated using this Freeform formula:

\[
(v1660.00) / @input
\]

where:

- \((v1660.00)\) = Trial Provision for Income Taxes
- \(@input\) = The input into Trial Provision for Income Taxes (v1660.00)

The calculated equation in the forecast periods is:

\[
(v3100.00) - (v2190.01) + (v3110.00)
\]

where:

- \((v3100.00)\) Tax Depreciation
- \((v2190.01)\) Depreciation Expense (Funds)
- \((v3110.00)\) Other Temporary Differences

**(v3130.00) Permanent Differences**

This holds permanent differences between GAAP income and taxable income. The default formula:

- \(-(v2400.03)\) Amortization of Goodwill

This assumes that anything deducted as Amortization of Goodwill (v2400.03) is a permanent difference. This may not be true, or you may have other permanent differences. Adjust the formula as needed.
(v3140.00) Taxable Income
Taxable income is earnings before tax reduced by permanent and temporary differences.

Taxable Income (v3140.00) is calculated as follows:

\[ \text{(v1600.00)} \quad \text{Earnings Before Taxes} \]
\[ - \quad \text{(v3120.00)} \quad \text{Temporary Differences} \]
\[ - \quad \text{(v3130.00)} \quad \text{Permanent Differences} \]
\[ = \quad \text{(v3140.00)} \quad \text{Taxable Income} \]

(v3150.00) Tax Refund Due to Loss Carryforward
Based on NOL generated in prior periods that is used to offset current period taxable income, this account reduces the current provision before NOL to arrive at the proper current provision.

It is calculated as: \( \text{v1630.00} / \text{v3140.00} \times \text{v3150.02} \)

where:

\( \text{(v1630.00)} \quad \text{Current Provision for Income Taxes (Excl. NOL)} \)
\( \text{(v3140.00)} \quad \text{Taxable Income} \)
\( \text{(v3150.02)} \quad \text{Tax Gains Offset} \)

(v3150.01) Maximum Carryforward
Amount that can be applied against current year taxable income.

(v3150.02) Tax Gains Offset
Amount actually applied against current-year taxable income. If taxable income is less than the maximum carryforward, this account is limited to taxable income. Unused carryforward may be used in subsequent years if it has not expired.

(v3150.03) Tax Loss Pool
Current year loss reduced by amounts carried back. This forms the basis for future carryforwards.

(v3150.04) Tax Loss Pool Used
During the carryforward period, the losses used by gains and thus unavailable for future carryforwards.
(v3160.00) Tax Refund Due to Loss Carryback
Refund generated for carrying back current year losses back to previous years.

(v3160.01) Maximum Carryback
At the beginning of a period, the largest loss that could be sustained in the current period and still be fully carried back, determined by adding the tax gains pool for each year during the carryback period and subtracting such gains previously used.

(v3160.02) Tax Losses Offset
In a period with a loss, the loss actually carried back. It is the lesser of the amount of the loss and the maximum carryback.

(v3160.03) Tax Gains Pool
Taxable income net of amounts carried forward into the current period. These gains are the basis for carrybacks, because future losses are carried back against them.

(v3160.04) Tax Gains Pool Used
During the carryback period, this represents the gains used by other losses.

(v3160.05) Tax Pool
Current provision for income taxes net of refunds due to loss carryforwards, similar to Tax Gains Pool (v3160.03), because this variable holds the taxes made refundable by carrybacks.

(v3205.00) Additions to Taxable Operating Profit
This account can be used to make adjustments to Taxable Operating Profit (v3210).

(v3210.00) Taxable Operating Profit
Used as the basis for computing the income tax attributable to the company’s basic operations.

(v3220.00) Interest Tax Shield
Tax savings a company realizes in conjunction with its interest cost. The input value for this account, the marginal tax rate, is the tax rate used for the interest tax shield. The output value is the actual interest tax shield.

It is calculated as follows:
where:

- (v3220.00) Input marginal tax rate into Interest Tax Shield
- (v1420.00) Total Interest Expense

Note that this Total Interest Expense (v1420) is the net of Interest Capitalized (v1410). This does not mean that no tax benefits exist associated with Interest Capitalized. Rather, companies that capitalize a portion of their total interest expense defer the tax benefit to future periods, when their taxable income is reduced by greater depreciation charges.

### (v3225.00) Non-Operating Profit

Represents the total profit generated from sources other than the direct operations of the business. This account is calculated as follows:

\[
(v3140.00) \quad \text{Taxable Income} \\
- (v3210.00) \quad \text{Taxable Operating Profit} \\
+ (v1420.00) \quad \text{Total Interest Expense} \\
= (v3225.00) \quad \text{Non-Operating Profit}
\]

Because Non-Operating Profit (v3225.00) consists of income and expense accounts that are unrelated to the ongoing production and administrative functions of the business, they are not included in the discounted cash flows used in valuation.

Enter nonoperating income accounts as before-tax amounts. Taxes applicable to nonoperating income accounts are calculated as Tax on Non-Operating Profit (v3230).

### (v3230.00) Tax on Non-Operating Profit

Income taxes applicable to Non-Operating Profit (v3225). The input value is the tax rate on nonoperating profit. The output value is the tax on nonoperating profit. The formula for Tax on Non-Operating Profit (v3230.00):

\[
(v3225.00) \ast (v3230.00)
\]

where:

- (v3230.00) Input tax rate into Tax on Non-Operating Profit
- (v3225.00) Non-Operating Profit

### (v3235.00) Additions to Operating Income Taxes

This is an input that allows the user to modify the system calculation of total taxes on operations.
(v3240.00) **Income Taxes on Operations**

The tax on taxable income adjusted by the interest tax shield, tax on nonoperating profit, and additions to operating income taxes.

\[
\begin{align*}
& \text{(v1610.00) Trial Provision for Income Taxes} \\
& + \text{(v3220.00) Interest Tax Shield} \\
& - \text{(v3230.00) Tax on Non-Operating Profit} \\
& + \text{(v3235.00) Additions to Operating Income Taxes} \\
& = \text{(v3240.00) Income Taxes on Operations}
\end{align*}
\]

(v3242.00) **Unrealized Benefit of Tax Loss**

Offsets negative income taxes on operations. You cannot get a tax benefit by losing money. You must be able to carry the loss back or forward. This functions like Unrealized Tax Benefit of Losses (v1620).

(v3245.00) **Current Provision for Operating Income Taxes Before NOLs**

\[
\begin{align*}
& \text{(v3240.00) Income Taxes on Operations} \\
& + \text{(v3242.00) Unrealized Benefit of Tax Loss} \\
& = \text{(v3245.00) Current Provision for Operating Income Taxes Before NOLs}
\end{align*}
\]

Unrealized Benefit of Tax Loss (v3242) has a value only if Income Taxes on Operations (v3240) is negative. Thus, this equals Income Taxes on Operations (v3240) when Income Taxes on Operations (v3240) is positive and zero when Income Taxes on Operations (v3240) is negative.

(v3250.00) **Operating Tax Refund Due to Loss Carryforward**

Account, based on NOL generated in prior periods, used to offset current period operating profit. Not technically a refund, it reduces the current provision before NOL arrives at the correct current provision.

Calculated as: \(\text{(v3245.00) / (v3210.00) * (v3250.02)}\)

where:

- \(\text{(v3245.00) Curr. Provision for Operating Inc. Taxes Before NOLs}\)
- \(\text{(v3210.00) Taxable Operating Profit}\)
- \(\text{(v3250.02) Tax Gains Offset}\)
(v3250.01) Maximum Carryforward
Amount that can be applied against current year taxable operating profit.

(v3250.02) Tax Gains Offset
Amount actually applied against current year taxable operating profit. If taxable operating profit is less than the maximum carryforward, this account is limited to taxable operating profit. Unused carryforward may be used in subsequent years if it has not expired.

(v3250.03) Tax Loss Pool
Current year loss reduced by amounts carried back. This forms the basis for future carryforwards.

(v3250.04) Tax Loss Pool Used
During the carryforward period, losses used by gains and thus unavailable for future carryforwards.

(v3260.00) Operating Tax Refund Due to Loss Carryback
Refund generated for carrying back current year losses back to previous years.

(v3260.02) Tax Losses Offset
In a period with a loss, the loss actually carried back. It is the lesser of the amount of the loss and the maximum carryback.

(v3260.01) Maximum Carryback
At the beginning of a period, this is the largest loss that could be sustained in the current period and still be fully carried back, determined by adding the tax gains pool for each year during the carryback period and subtracting such gains previously used.

(v3260.03) Tax Gains Pool
Taxable operating profit net of amounts carried forward into the current period. These gains are the basis for carrybacks, because future losses are carried back against them.

(v3260.04) Tax Gains Pool Used
During the carryback period, the gains used by other losses.
(v3260.05) Tax Pool

Current provision for operating income taxes net of refunds due to loss carryforwards. This is similar to Tax Gains Pool (v3260.03), because this variable holds the taxes made refundable by carrybacks.

(v3265.00) Additional Operating Tax Refund

This account is often linked using a Freeform formula to Additional Tax Refund (v1635). The additional tax refund might not be operating. For cash-flow purposes, this account allows us to separate what is operating from what is not.

(v3270.00) Total Operating Tax Refund

Two variables are used to handle the tax refund, Additional Tax Refund (v1635) and Total Operating Tax Refund (v3270.00). Additional Tax Refund (v1635) is reused from regular taxable income. Its use here means Strategic Finance treats user-defined refunds as coming from operations. Total Operating Tax Refund (v3270.00) is calculated in all periods but is different in historical periods than in forecast periods.

In historical periods, it is:

(v1635.00) Additional Tax Refund

Because Additional Tax Refund (v1635) is an input, the tax refund is essentially an input in history.

In forecast periods, it is

(v1635.00) Additional Tax Refund
+ (v3250.00) Oper. Tax Refund Due to Loss Carryforward
+ (v3260.00) Operating Tax Refund Due to Loss Carryback
= (v3270.00) Total Operating Tax Refund

The refund due to NOL carryforwards and carrybacks are calculated only in the last period of a year and if Calculate Tax Effects Automatically is selected in Tax Effect of Losses dialog. If you do not check the box, the tax refund is an input.

Total Taxes on Operations (v3280.00)

(v3275.00) Current Provision for Operating Taxes
+ (v1680.00) Other Taxes
= (v3280.00) Total Taxes on Operations

Strategic Finance assumes that anything entered in Total Taxes on Operations (v3280.00) relates to operations. If this is not true, use Additions to Operating Income Taxes (v3235) to adjust Income Taxes on Operations (v3240).
(v3275.00) Current Provision for Operating Taxes

Calculated as:

- (v3245.00) Curr. Prov. for Oper. Inc. Taxes Before NOLs
- (v3270.00) Total Operating Tax Refund

= (v3275.00) Current Provision for Operating Taxes

(v3290.00) Current Non-Operating Taxes

Portion of taxes payable in the current period that is a result of accounts that are not included in operations for the purpose of valuation, such as Non-Operating Income and Interest Expense.

Current Non-Operating Taxes can be calculated as:

- (v1650.00) Current Provision for Income Taxes
+ (v1680.00) Other Taxes
- (v3280.00) Total Taxes on Operations

= (v3290.00) Current Non-Operating Taxes

(v3400.00) Common Shares Outstanding: Year End

Total common shares outstanding at the period end, calculated as the difference between the total common shares issued at period end and the total treasury shares held at period end.

(v3410.00) Common Shares Outstanding: Wtd. Avg.

Weighted-average number of common shares outstanding over the period, calculated by the difference between the weighted average of the total issued common shares over the current and prior periods and the weighted average of the total number of treasury shares held over the current and prior periods.

(v3430.00) Potentially Dilutive Securities

Number of common stock equivalents, or dilutive securities (as defined by APB No. 15 and amended by FASB 85), to be added to the Number of Common Shares: Weighted Average (v3410) for use in calculating Primary Earnings Per Share (v6130) or Fully Diluted Earnings Per Share (v6135).

“Common Stock Equivalents” for the Primary EPS calculation include such securities as:

- Convertible debt
- Convertible preferred stock
- Options
Warrants
Stock purchase contracts
Stock subscription agreements
Contingent issuance agreements

“Potentially Dilutive Securities” for the Fully Diluted EPS calculation include all common stock equivalents plus such securities as these:
- Shares assumed to be issued upon conversion of debentures
- Participating securities and two-class common

**(v3450.00) Diluted EPS Adj. to Net Income**

In computing Primary EPS and Fully Diluted EPS, convertible securities are treated as being converted at the beginning of the period (or when issued, if issued during the period). On the assumption that these securities were converted, the company would not pay interest charges or preferred dividends on them. So an adjustment must be added back to Income Available for Common Shareholders (v1850) for interest charges (net of tax) and preferred dividends related to the common stock equivalents (for Primary EPS) or all dilutive securities (for Fully Diluted EPS).

The number of Common Stock Equivalents or Potentially Dilutive Securities (v3420 or v3430) is added to the Number of Common Shares: Weighted Average (v3410) in calculating Primary EPS (v6130) or Fully Diluted EPS (v6135).

In general,

\[
\text{Adjusted Income} = \text{(v1850.00)} + \text{(v3450.00)}
\]

\[
\text{Adjusted Number of Shares} = \text{(v3410.00)} + \text{(v3420.00 or v3430.00)}
\]

Adjusted Income and Adjusted Number of Shares are calculated as follows:

\[
\text{Adjusted Income} = \text{(v1850.00)} + \text{(v3450.00)}
\]

\[
\text{Adjusted Number of Shares} = \text{(v3410.00)} + \text{(v3420.00 or v3430.00)}
\]

where:
- (v1850.00) Income Available for Common Shareholders
- (v3450.00) Fully Diluted EPS Adj. to Net Income
- (v3410.00) Number of Common Shares: Wtd. Avg.
- (v3420.00) Common Stock Equivalents
- (v3430.00) Potentially Dilutive Securities

In general,
(v3460.00) Number of Common Shares Issued: Year End

Balance account measures the number of common shares that a company has issued at year end. Enter the total shares issued for the corporation using the default currency units that you specified in Model Options. For example, if your data is in millions, enter 950,000 shares as .95. This account is used to calculate Number of Common Shares Outstanding: Year-End (v3400).

(v3460.05) Number of Common Shares Issued: Wtd. Avg.

Weighted average number of shares issued accounts for the issuance of shares during a period. Common shares issued during the period are “weighted” (that is, multiplied by the fraction of the period for which they were outstanding), and the weighted number of these shares is added to the number of shares issued during the period.

Enter the total shares for the corporation using the default currency units that you specified in Model Options. For example, if your financial data is in millions, enter 950,000 shares as .95. This account is used to calculate Number of Common Shares Outstanding: Wtd. Avg. (v3410).

(v3460.06) Minimum Common Shares Issued

Allows you to specify a minimum balance to be maintained for Common Shares Issued (v3460) in all periods, if Common Shares Issued (v3460) is selected as a Cash Surplus account in Funding Options. If Common Shares Issued (v3460) is selected as a Cash Surplus account, and Specify Minimum Balance is selected on the Standard tab, funding options will not retire additional common shares once it has reached the minimum balance specified in this account.

(v3460.07) Maximum Common Shares Issued

Used to specify the maximum balance for the Common Shares Issued to reach when Funding Options is funding a Cash Deficit.

(v3460.09) Balance Correction Common Shares Issued: Year-End

This account, calculated in all periods, receives amounts, generated by the balancing routine in Strategic Finance, that are required to make the funds flow balance.

(v3470.00) Number of Treasury Shares: Year-End

Balance account measures the total treasury shares that a company has issued at year end.
Enter the total shares issued for the corporation using the default currency units that you specified in Model Options. For example, if your financial data is in millions, enter 950,000 shares as .95.

This account is used to calculate Number of Common Shares Outstanding: Year-End (v3400).

**(v3470.05) Number of Treasury Shares: Wtd. Avg.**

The weighted average number of treasury shares accounts for the issuance of shares during a period. Treasury shares issued during the period are “weighted” (that is, multiplied by the fraction of the period for which they were outstanding), and the weighted number of these shares is added to the number of shares issued during the period.

Enter the total shares for the corporation using the default currency units that you specified in Model Options. For example, if your financial data is in millions, enter 950,000 shares as .95.

This account is used to calculate Number of Common Shares Outstanding: Wtd. Avg. (v3410).

**(v3470.06) Minimum Treasury Shares (Y-E)**

Allows you to specify a minimum balance to be maintained for Treasury Shares (v3470) in all periods, if Treasury Shares (v3470) is selected as a Cash Deficit account in Funding Options. If Treasury Shares (v3470) is selected as a Cash Deficit account and Specify Minimum Balance is selected on the Standard tab, funding options will not re-issue additional treasury shares once it has reached the minimum balance specified in this account.

**(v3470.07) Maximum Treasury Shares (Y-E)**

(IIncrease in Maximum Treasury Shares Issued (Y-E) (v3470.08))

Used to specify the maximum balance for the Treasury Shares to reach when Funding Options is accumulating a Cash Surplus.

**(v3470.09) Balance Correction Treasury Shares (Y-E)**

This account, calculated in all periods, receives amounts, generated by the balancing routine in Strategic Finance, that are required to make the funds flow balance.

**(v3490.00) Transaction price for Common Shares**

Used to specify the transaction price applied when common or treasury shares are issued or purchased as a result of Strategic Finance’s funding options.

**(v3500.00) Debt Due Within One Year**

Nonoperating account represents the total of interest-bearing obligations due within one year. It is calculated as follows:
Notes Payable + Current Portion of L-T Debt = Debt Due Within One Year

Total Debt and Preferred Stock
Sums the Debt Due Within One Year (v3500.00), Total L-T Debt (v2700.00)v1680), and Preferred Stock (v2820.00):

Debt Due Within One Year + Total L-T Debt + Preferred Stock = Total Debt and Preferred Stock

Total Capital
Calculated account, found on the Balance Sheet, is the total of all sources of capital in the company: Debt, Preferred Stock, and Common Equity.

Minority Interest + Total Debt and Preferred Stock + Common Equity = Total Capital

Total Debt
Calculated as:

Debt Due within One year + Total Long-Term Debt + Preferred Securities = Total Debt

This account differs from Total Debt and Preferred Stock (v3510.00) in that Preferred Stock is used in the calculation only if it is being allocated as debt in the Target Capital Structure tab of the Funding Options dialog and the Target Capital Structure method is being used for funding.
**Target Debt Capacity**

Represents the dollar amount of debt (including preferred stock) a company will have in its capital structure over the long term. This is an input account that appears on the Funding Analysis Report.

**Target Preferred Capacity**

Dollar amount of Preferred Stock that a company will have in its long-term capital structure. This input account, which appears on the Funding Analysis Report, is used to calculate Unused Preferred Capacity (v3554.00).

**Unused Debt Capacity (UDC)**

(Increase in Unused Debt Capacity (v3570.00))

Additional debt a company can incur without exceeding the debt specified by the Target Debt Capacity (v3550). It is calculated as follows:

\[
\text{(v3550.00) Target Debt Capacity} - \text{(v3510.00) Total Debt and Preferred Stock} = \text{(v3560.00) Unused Debt Capacity}
\]

A positive amount in this account displayed on the Funding Analysis Report reflects excess debt capacity; a negative amount indicates that the company is exceeding its long-term debt target.

**Unused Preferred Capacity**

Additional preferred stock a company can incur without exceeding the debt specified by the Target Preferred Capacity (v3552), calculated as follows:

\[
\text{(v3552.00) Target Debt Capacity} - \text{(v2820.00) Preferred Stock} = \text{(v3562.00) Unused Preferred Capacity}
\]

A positive amount in this account on the Funding Analysis Report reflects excess preferred capacity; a negative amount indicates that the company is exceeding its long-term preferred stock target.
(v3580.00) Unused Debt Capacity plus Marketable Securities

The sum of Unused Debt Capacity (v3560) and Marketable Securities (v2010), these are the additional resources available to the company that can be used without the company having to borrow funds in excess of its Target Debt Capacity (v3550).

(v3590.00) Total Cash Interest Expense

This nonoperating account appears on the Funding Analysis Report and represents the total cash interest expense paid in a period, including Other Interest Expense (v1360). The assumption made is that all short-term interest expense is cash. Specify long-term cash interest in Interest on L-T Debt: Scheduled (v2660.05) and Interest on L-T Debt: Excess (v2690.05). Enter the noncash portion of interest in Non-Cash Interest on L-T Debt: Scheduled (v2660.03).
Subtopics

- (v4000.00) Proceeds from Sale of Assets
- (v4050.00) Funds from Operations Before Tax
- (v4060.00) Funds from Operations After Taxes
- (v4070.00) Incremental Working Capital Investment
- (v4080.00) Cash Flow Adjustment: Source
- (v4100.00) Cash Flow from Operations
- (v4110.00) Non-Operating Sources of Funds
- (v4150.00) Non-Operating Uses
- (v4180.00) Deferred Tax Reconciliation
- (v4200.00) Non-Operating Income (after tax)
- (v4250.00) Net Cash Provided
- (v4260.00) Funding Surplus/(Deficit)
- (v4320.00) Cash from Operating Cycle
- (v4420.00) Other Non-Cash Accounts
- (v4430.00) Cash bef. Fin. Cost & Ext. Fin.
- (v4440.00) Cash bef. External Financing
- (v4450.00) Other Operating Uses
- (v4460.00) Cash Available for Dividends
- (v4470.00) Cash Available for Investments
- (v4520.00) Non-Operating Sources (FAS 95)
- (v4540.00) Non-Operating Uses (FAS 95)
- (v4560.00) Net Cash from Operations
- (v4580.00) Net Cash Used in Investing
- (v4600.00) Net Cash Provided by Financing
- (v4610.00) Incr. in Cash & Cash Equiv.
- (v4620.00) Cash & Cash Equivalents (beginning)
- (v4630.00) Cash & Cash Equivalents (ending)
- (v4640.00) Change in Cash & Cash Equivalents
- (v4650.00) Operating Profit (After Interest)
- (v4660.00) Taxable Operating Profit (After Interest)
- (v4670.00) Operating Costs

**(v4000.00) Proceeds from Sale of Assets**

The cash received or the gross proceeds before taxes are deducted from the sale or retirement of assets. This account is automatically calculated as follows:

\[
\text{(v2170.03)} \text{ Gross Retirements} \\
- \text{(v2190.03)} \text{ Accumulated Depreciation on Retirements} \\
\text{(v1170.00)} \text{ Gain on Sale of Assets} + \\
\text{ (v4000.00) Proceeds from Sale of Assets}
\]
In forecast periods, you can enter total proceeds from the sale of fixed or depreciable assets sold in the Gain on Sale of Assets (v1170.00) account. If you dispose of working capital accounts, enter only the gain portion of the sale.

The respective working capital accounts should be reduced by the book value of the working capital disposals.

**(v4050.00) Funds from Operations Before Tax**

Before-tax cash flow generated by the company’s basic operations, calculated as follows:

\[ (v1150.00) \text{ Operating Profit} + (v2190.01) \text{ Depreciation Expense (Funds)} + (v2410.03) \text{ Amort. of Other Intangibles} + (v2400.03) \text{ Amortization of Goodwill} + (v2760.01) \text{ Increase in Other Deferrals} = (v4050.00) \text{ Funds from Operations Before Tax} \]

**(v4060.00) Funds from Operations After Taxes**

Cash flow generated by the company’s basic operations after deducting Total Taxes on Operations (v3280), calculated as follows:

\[ (v4050.00) \text{ Funds from Operations Before Tax} - (v3280.00) \text{ Total Taxes on Operations} = (v4060.00) \text{ Funds from Operations After Taxes} \]

**(v4070.00) Incremental Working Capital Investment**

The Incremental Working Capital Investment (v4070.00) required for operations is defined as the increase in Total Current Assets (v2100) (excluding Marketable Securities (v2017)) minus the Increase in Total Current Liabilities (v2600) (excluding the Current Portion of Long-Term Debt (v2510) and Notes Payable (v2520)).

Incremental Working Capital Investment (v4070.00) excludes the increases in Marketable Securities (v2017), Current Portion of Long-Term Debt (v2510) and Notes Payable (v2520) because those accounts are financing issues and are not part of the cash required for operations.

The Incremental Working Capital Investment (v4070.00) represents the actual investment in receivables, inventory, and so on that is necessary to support sales growth. Because this investment is part of the company’s basic production and administrative function, it is included in the calculation of Cash Flow from Operations (v4100). Past year-to-year Balance Sheet data may not provide a good measure of the increase or decrease in funds required for the future. Past figures can be misleading for two reasons:
1. Year-end figures on the Balance Sheet may not reflect the average or usual needs of the business during that year.

2. Estimating the cost of increased inventory based on the difference between beginning and ending inventory balances may yield unreliable results.

**(v4080.00) Cash Flow Adjustment: Source**

If your Cash Flow from Operations (v4100) includes nonoperating or noncash accounts, you can use the adjustment account to exclude the effect of those accounts from the operating cash flows used for valuation.

An example of a noncash account is the portion of Fixed Capital Investment (v2170.01) that reflects a foreign-currency translation adjustment. A translation gain overstates Fixed Capital Investment (v2170.01) and therefore understates Cash Flow from Operations (v4100). Conversely, a translation loss understates Fixed Capital Investment (v2170.01) and overstates Cash Flow from Operations (v4100).

An example of a nonoperating account is the portion of Fixed Capital Investment (v2170.01) that represents the “Allowance for Funds Used During Construction” (AFUDC). This allowance is used by utility companies to reflect an imputed financing cost in their fixed assets. Including AFUDC overstates Fixed Capital Investment (v2170.01) and understates Cash Flow from Operations (v4100).

To correct an understatement of Cash Flow from Operations (v4100) (such as, from a translation gain or the effect of AFUDC), enter the amount of the noncash or nonoperating account as a positive number into Cash Flow Adjustment: Source (v4080).

To correct an overstatement of Cash Flow from Operations (v4100) (such as from a translation loss), enter the amount of the noncash account as a negative number into Cash Flow Adjustment: Source (v4080).

If the value entered in this account is a reclassification of accounts from operating to nonoperating or the converse, no further adjustment is required. If the value represents actual cash flow, enter it into Funds Flow Adj: Source (v3000) or Funds Flow Adj: uses (v3020) so that its impact is recognized in Retained Earnings (v2850).

**(v4100.00) Cash Flow from Operations**

Total cash generated by the company's basic ongoing activities in each period. These future cash flows, when discounted at today’s currency amounts, become the Present Value of Cash Flow (v5010) and are added to the Present Value of Residual Value (v5220) to calculate Corporate Value (v5060).

Do not confuse Cash Flow from Operations (v4100.00) with total cash flow. Total cash flow also includes nonoperating accounts (those unrelated to basic business operations). Examples of nonoperating accounts that are included in total cash flow but excluded from Cash Flow from Operations (v4100.00):

1. Financing-related accounts (sale of stock or interest expense)
2. Investments in bonds and stock
3. Extraordinary accounts

Nonoperating cash flow accounts are excluded from Cash Flow from Operations (v4100.00)—and therefore from the calculation of Shareholder Value (v5070)—because it is inappropriate to use the same cost of capital for nonoperating and operating cash flows, which may have different risk characteristics. Nonoperating investments do have a value to the company, which is why Marketable Securities (v2010) and Investments in Bonds and Stock (v5.00.560) are added to the Cum. PV of Cash Flows (v5020) and Residual Value (v5030) in calculating Corporate Value (v5060).

The rationale for distinguishing between operating and nonoperating cash flows for valuation purposes is based on a fundamental tenet of modern financial theory: The discount rate applied to a stream of cash flows should reflect the risk specific to those cash flows.

**(v4110.00) Non-Operating Sources of Funds**

Represents funds derived from sources other than operations, specifically:

- (v2525.01) Increase in Accrued Interest
- (v2595.01) Incr. in Other Non-Operating Curr. Liab.
- (v2790.01) Increase in Other Liabilities
- (v2420.03) Earnings from Investments: Equity
- (v2420.05) Dividends from Subsidiaries
- (v2780.01) Increase in Minority Interest
- (v2870.01) Incr. in Currency Translation Adjustments
- (v3000.00) Funds Flow Adjustment: Sources
- (v2880.01) Increase in Other Equity

= (v4110.00) Non-Operating Sources of Funds

Because these funds-flow accounts are derived from sources other than the basic operations of the business, they are not included in the calculation of Cash Flow from Operations (v4100).

**(v4150.00) Non-Operating Uses**

Represents funds applied to Non-Operating activities:

- (v2095.01) Incr. in Other Curr. Assets - Non-Operating
- (v2420.01) Increase in Investments: Equity Method
- (v2430.01) Increase in Investments: Cost Method
- (v2440.01) Increase in Other Assets
Because these funds flow accounts result from uses for funds other than the basic operations of the business, they are not included in the calculation of Cash Flow from Operations (v4100).

**Deferred Tax Reconciliation**

Measures the difference between the deferred taxes as reflected on the Income Statement and those reflected on the balance sheet, calculated as follows:

- (v1660.00) Deferred Provision for Income Taxes
- (v2580.01) Increase in Current Deferred Tax Liabilities
- (v2780.01) Increase in Deferred Income Taxes
+(v2080.01) Increase in Current Deferred Tax Asset
+(v2380.01) Increase in Deferred Tax Asset

=(v4180.00) Deferred Tax Reconciliation

**Non-Operating Income (after tax)**

Calculated as:

- (v3225.00) Non-Operating Profit
- (v1720.00) Minority Interest
+ (v1730.00) Extraordinary Items
+ (v2420.03) Earnings from Investments: Equity

=(v4200.00) Non-Operating Income (after tax)

Derived from sources other than the basic operations of the business so they are not included in the calculation of Cash Flow from Operations (v4100).

**Net Cash Provided**

This account on the Cash Flow Statement captures the Cash Surplus or Cash Deficit that is generated or required by operations in a given period. Depending on which Funding Options are selected, a Cash Surplus is used to pay dividends, repay debt, and/or invest in marketable securities.

Cash Deficits are funded by reducing marketable securities, issuing additional debt or relying on “negative dividends” (funding from a parent company).

Net Cash Provided is determined as follows:
(v4100.00) Cash Flow from Operations
+ (v4200.00) Non-Operating Income
- (v1170.00) Gain on Sales of Assets
+ (v4110.00) Non-Operating Sources
- (v4150.00) Non-Operating Uses
- (v4080.00) Cash Flow Adjustment: Source
- (v1400.00) Total Interest Expense
- (v3290.00) Current Non-Operating Taxes
- (v1800.00) Preferred Dividends
+ (v2830.01) Proceeds from Sale of Common Stock

= (v4250.00) Net Cash Provided

**(v4260.00) Funding Surplus/(Deficit)**

This account can help answer these questions:

1. Will the company generate sufficient funds from its operations to pay its dividends without borrowing?
2. Is the strategy “financially feasible,” or would it require unacceptable amounts of additional debt?
3. Is the strategy a cash generator or a cash drain in each period?

Funding Surplus/(Deficit) (v4260.00) is calculated as follows:

\[
(v4250.00) \quad \text{Net Cash Provided} \\
- (v1900.00) \quad \text{Common Dividends} \\
= (v4260.00) \quad \text{Funding Surplus/(Deficit)}
\]

Depending on Funding Options selected, a Cash Surplus is used to repay debt and invest in marketable securities; Cash Deficits are funded by reducing marketable securities and/or issuing additional debt.

**(v4320.00) Cash from Operating Cycle**

Enables you to identify whether the operations of the business are generating sufficient cash to cover required investments. If this account is not greater than the investments, the resulting cash flow from operations is negative, which may adversely affect value creation for that period.

If Cash from Operating Cycle (v4320.00) cannot pay for the investments, it could indicate that, for a year:
1. The business is investing in that period, using funds from other sources such as debt or equity; or
2. The business is not generating much operating profit, causing the Cash from Operating Cycle (v4320.00) to be less than the amount desired.

Cash from Operating Cycle (v4320.00) is calculated as follows:

\[
(v4060.00) \text{ Funds from Operations After Tax} - (v4070.00) \text{ Incr. Working Capital Investment} = (v4320.00) \text{ Cash from Operating Cycle}
\]

Change in Cash, Excess Mkt. Sec., and Mkt. Sec (v4490.00)

Appears on the Indirect Cash Flow Statement and is calculated as follows:

\[
(v2000.01) \text{ Incr. in Cash} + (v2017.01) \text{ Incr. in Total Mkt. Securities} = (v4490.00) \text{ Change in Cash, Excess Mkt. Sec., and Mkt. Sec.}
\]

**(v4420.00) Other Non-Cash Accounts**

Combines various noncash accounts that must be removed from Net Income (v1750) to determine Funds Available from Operations (v4430).

\[
(v2760.01) \text{ Increase in Other Deferrals} + (v2780.01) \text{ Incr. in Minority Interest} + (v2420.05) \text{ Dividends from Subsidiaries} - (v2420.03) \text{ Earnings from Invest.: Equity} = (v4420.00) \text{ Other Non-Cash Items}
\]

**(v4430.00) Cash bef. Fin. Cost & Ext. Fin.**

On the Indirect Cash Flow Statement, the cash flow generated by the company's basic operations.

Cash bef. Fin. Cost & Ext. Fin. (v4430.00) is calculated as follows:

\[
(v4100.00) \text{ Cash Flow from Operations} - (v4150.00) \text{ Non-Operating Uses} - (v3290.00) \text{ Current Non-Operating Taxes} - (v4080.00) \text{ Cash Flow Adjustment: Source} + (v4110.00) \text{ Nonoperating Sources} + (v4200.00) \text{ Nonoperating Income}
\]
- (v4570.00) Acquired Assets
- (v4571.00) Acquired Cash
- (v4572.00) Assets created by Transaction
+ (v4575.00) Acquired Liabilities
- (v4577.00) Liabilities/Equity created by Transaction
= (v4430.00) Cash bef. Fin. Cost & Ext. Fin.

**(v4440.00) Cash bef. External Financing**

On the Indirect Cash Flow Statement, this account is calculated as follows:

- (v4430.00) Cash bef. Fin. Cost & Ext. Fin.
- (v1400.00) Interest Expense
- (v1800.00) Preferred Dividends
- (v1900.00) Total Common Dividends
+ (v1902.00) Payout to Shareholders

= (v4440.00) Cash bef. External Financing

**(v4450.00) Other Operating Uses**

This account, which appears on the Indirect Cash Flow Statement, is calculated as follows:

- (v2440.01) Incr. in Other Assets
+ (v3020.00) Funds Flow Adj: Uses
- (v2790.01) Incr. in Other Liabilities
- (v3000.00) Funds Flow Adj: Sources

= (v4450.00) Other Operating Uses

**(v4460.00) Cash Available for Dividends**

This account, on the Indirect Cash Flow Statement is calculated as follows:

- (v4440.00) Cash bef. External Financing
- (v2170.01) Fixed Capital Investment
- (v2390.01) Additions to Land
- (v4450.00) Other Operating Uses
+ (v1410.00) Interest Capitalized
= (v4460.00) Cash Available for Dividends

**(v4470.00) Cash Available for Investments**

On the Indirect Cash Flow Statement, this account is calculated as follows:

- (v4460.00) Cash Avail. for Dividends
- (v1800.00) Preferred Dividends
- (v1900.00) Common Dividends

= (v4470.00) Cash Available for Investments

**(v4520.00) Non-Operating Sources (FAS 95)**

Represents funds derived from sources usually considered nonoperating. FAS 95 requires that these accounts be considered operating. For valuation purposes these accounts should not be included in Cash Flow from Operations (v4100).

- (v2595.01) Incr. in Other Non-Oper Curr. Liab.
- (v2785.01) Incr. in Non-Current Operating Liability
- (v2790.01) Incr. in Other Liabilities
- (v2420.05) Dividends from Subs.
+ (v3000.00) Funds Flow Adj: Sources
- (v4180.00) Deferred Tax Reconciliation

= (v4520.00) Non-Oper. Sources (FAS 95)

**(v4540.00) Non-Operating Uses (FAS 95)**

Account appears on the FAS 95 Cash Flow Statement and is for funds applied to uses normally considered nonoperating. Although FAS 95 considers these funds part of cash flow from operations, it is inappropriate to use this account in deriving cash flows for valuation purposes.

- (v2095.01) Incr. in Other Current Assets - Non-Operating
- (v2470.01) Incr. in Non-Current Operating Asset
- (v2440.01) Incr. in Other Assets
+ (v3020.00) Funds Flow Adj: Uses

= (v4540.00) Non-Oper. Uses (FAS 95)
(v4560.00) Net Cash from Operations

Appears on the FAS 95 Cash Flow Statement. Net Cash from Operations (v4560.00) is defined by FAS 95 as representing the cash flow from the basic operations of the company. From a valuation perspective, it incorrectly commingles Nonoperating expenses, including interest, with the basic operating cash flows of the company. It is inappropriate to use this cash flow in calculating a company's Corporate Value (v5060) or Shareholder Value (v5070).

(v4580.00) Net Cash Used in Investing

This appears on the FAS 95 Cash Flow Statement. It represents those accounts which, in compliance with FAS 95, must be considered investments. Net Cash Used in Investing (v4580.00) is calculated as follows:

\[
\begin{align*}
\text{(v2170.01)} & \quad \text{Fixed Capital Investment} \\
+ \quad (v2390.01) & \quad \text{Additions to Land} \\
+ \quad (v2050.01) & \quad \text{Incr. in Notes Receivable} \\
+ \quad (v2420.01) & \quad \text{Incr. in Invests: Equity Method} \\
+ \quad (v2430.01) & \quad \text{Incr. in Invests: Cost Method} \\
+ \quad (v2400.01) & \quad \text{Additions to Goodwill} \\
+ \quad (v2410.01) & \quad \text{Additions to Other Intangibles} \\
- \quad (v4000.00) & \quad \text{Proceeds from Sale of Assets} \\
\end{align*}
\]

= (v4580.00) Net Cash Used in Investing

(v4600.00) Net Cash Provided by Financing

Sum of the financing activity of a company as defined by FAS 95. Because FAS 95 categorizes interest as an operating activity, this account does not include all financing costs.

\[
\begin{align*}
\text{(v2510.01)} & \quad \text{Incr. in Curr Port. L-T Debt} \\
+ \quad (v2520.01) & \quad \text{Incr. in Notes Payable} \\
+ \quad (v2660.01) & \quad \text{Increase in L-T Debt: Scheduled} \\
+ \quad (v2690.01) & \quad \text{Increase in L-T Debt: Excess} \\
- \quad (v2460.01) & \quad \text{Incr. In L-T Funding Asset} \\
+ \quad (v2780.01) & \quad \text{Increase in Minority Interest} \\
+ \quad (v2820.01) & \quad \text{Proceeds from Sales of Preferred Stock} \\
+ \quad (v2840.01) & \quad \text{Chg. in Common Stock (Net of Treasury)} \\
+ \quad (v2870.01) & \quad \text{Increase in Currency Translation Adjustments} \\
+ \quad (v2880.01) & \quad \text{Increase in Other Equity}
\end{align*}
\]
- (v1800.00) Preferred Dividends
- (v1900.00) Common Dividends

= (v4600.00) Net Cash Provided by Financing

**(v4610.00) Incr. in Cash & Cash Equiv.**

This account is calculated as follows:

- (v4560.00) Net Cash Provided by Financing
- (v4580.00) Net Cash Used in Investing
+ (v4600.00) Net Cash from Operations

= (v4610.00) Incr. in Cash & Cash Equiv.

**(v4620.00) Cash & Cash Equivalents (beginning)**

This calculated account, which appears on the FAS 95 Cash Flow Statement, is calculated as follows:

- (v2000.00) Cash (prior period)
+ (v2010.00) Marketable Securities (prior period)
+ (v2015.00) Excess Marketable Securities (prior period)

= (v4620.00) Cash & Cash Equivalents (Balance Sheet)

**(v4630.00) Cash & Cash Equivalents (ending)**

This account, on the FAS 95 Cash Flow Statement, is calculated as follows:

- (v2000) Cash
+ (V2005) Cash Used in Transaction
+ (v2010) Marketable Securities
+ (v2015) Excess Marketable Securities

= (v4630) Cash & Cash Equivalents (ending)

**(v4640.00) Change in Cash & Cash Equivalents**

This calculated account appears on the FAS 95 Cash Flow statement and is calculated as follows:

- (v2000.01) Incr. in Cash
+ (v2005.01) Increase in Cash Used in Transaction
$+(v2017.01) \text{ Change in Total Marketable Securities}$

$= (v4640.00) \text{ Change in Cash & Cash Equivalents}$

**(v4650.00) Operating Profit (After Interest)**

Appears on the FAS 95 Cash Flow Statement and is a nonoperating account representing income generated by ongoing production and administrative functions of the business less Total Interest Expense ($v1420$). For valuation purposes, it incorrectly combines operating cash flows with financing cash flows; this treatment is required by FAS 95 requirements. It is calculated as follows:

$ (v1150.00) \text{ Operating Profit} - (v1420.00) \text{ Total Interest Expense} = (v4650.00) \text{ Operating Profit (After Interest)}$

**(v4660.00) Taxable Operating Profit (After Interest)**

Nonoperating account that appears on the FAS 95 Cash Flow Statement and is used to compute the income tax attributable to company operations. It differs from Taxable Operating Profit ($v3210$) because it is shown on an after-net interest basis.

$ (v4650.00) \text{ Operating Profit (After Interest)} + (v2400.03) \text{ Amortization of Goodwill} = (v4660.00) \text{ Taxable Operating Profit (After Interest)}$

**(v4670.00) Operating Costs**

Calculated as follows:

$ (v1030.00) \text{ Sales (Net)} - (v3210.00) \text{ Taxable Operating Profit} = (v4670.00) \text{ Operating Costs}$
5000.xx.xxx to 5999.xx.xxx Accounts

Subtopics

- (v5000.01) Discount Factor (Kw)
- (v5000.02) Future Value Factor (Kw)
- (v5000.03) Accumulation Factor (Kw)
- (v5000.05) Mid-Period Discount Factor (Kw)
- (v5000.06) Mid-Period Future Value Factor (Kw)
- (v5005.00) Long-Term Cost of Capital (%)
- (v5005.03) Accumulation Factor (LT Kw)
- (v5030.00) Cumulative Present Value of Cash Flows and Residual Value
- (v5010.00) Present Value of Cash Flow
- (v5060.00) Corporate Value
- (v5070.00) Shareholder Value (PV)
- (v5080.00) Shareholder Value per Share (PV)
- (v5090.00) Premium/Discount Over/Under Market Price
- (v5100.00) Perpetuity Operating Profit (after tax)
- (v5110.00) Normalized Operating Profit Adjustment
- (v5120.00) Market-to-Book Ratio
- (v5130.00) Price/Earnings Ratio
- (v5140.00) Normalized Earnings Adjustment
- (v5150.00) Debt Discount/(Premium)
- (v5160.00) Perpetuity Residual Value
- (v5170.00) Growing Perpetuity Residual Value
- (v5175.00) Value Growth Duration Perpetuity Value
- (v5180.00) Liquidation Residual Value
- (v5190.00) Market-to-Book Residual Value
- (v5200.00) Price/Earnings Residual Value
- (v5210.00) Future Value of Residual Value
- (v5220.00) Present Value of Residual Value
- (v5300.00) Cost of Equity (Ke)
- (v5305.00) Long-Term Cost of Equity (%)
- (v5305.03) Accumulation Factor (LT Ke)
- (v5308.00) Common Dividends DDM
- (v5310.00) Present Value of Dividend
- (v5320.00) Cum. PV of Dividends
- (v5330.00) Cum. PV of Dividends and Equity Residual Value
- (v5370.00) Estimated Equity Value
- (v5380.00) Equity Value Per Share
- (v5390.00) Premium/Discount Over/Under Market
- (v5400.00) Affordable Dividend
- (v5410.00) Perpetuity Affordable Dividend
- (v5420.00) Market-to-Book Equity Ratio
- (v5430.00) Price/Earnings Equity Ratio
- (v5440.00) Normalized Earnings Adjustment
- (v5460.00) Perpetuity Dividend Residual Value
- (v5470.00) Growing Dividend in Perpetuity Value
- (v5475.00) Value Growth Duration Perpetuity Value
- (v5480.00) Equity Liquidation Value
- (v5490.00) Market-to-Book Equity Residual Value
- (v5500.00) Price/Earnings Equity Residual Value
(in today’s dollars) of $1 acquired at the end of that year.

**Future Value Factor (Kw)**

Not used in Strategic Finance in formulas but calculated and available for use in Freeform formulas. The Future Value Factor (Kw) can determine the future value of a stream of cash flows, based upon the weighted average cost of capital and the number of years into the future you want to value these cash flows.

**Accumulation Factor (Kw)**

Used when calculating discount factors in nonaggregate periods such as months and quarters.

**Mid-Period Discount Factor (Kw)**

Used instead of the Discount Factor (Kw) (v5000.01) when Mid-Period discounting is selected.

**Mid-Period Future Value Factor (Kw)**

Used instead of the Future Value Factor (Kw) (v5000.02) when Mid-Period discounting is selected.

**Long-Term Cost of Capital (%)**

The Cost of Capital (v5000), or discount rate, is the weighted average of the costs of debt and equity.

The Long-Term Cost of Capital (v5005.00) is used in the residual value period. Using a cost of capital to calculate residual value allows you to assign different required rates of return to the post-planning horizon period and forecast period, increasing your flexibility in modeling the forecast period and residual value of the company.

Forecasting different costs of capital rates for different periods is not recommended, unless you expect the company to 1.) operate in businesses with substantially different risk in the future, or 2.) go through a period when its capital structure is suboptimal.

Enter this input item as a percentage.

**Accumulation Factor (LT Kw)**

Used when calculating discount factors in nonaggregate periods such as months and quarters.
(v5008.00) Cash Flow from Operations (SVA)
This account receives the operating cash flows as defined in Cash Flow from Operations (v4100).

(v5030.00) Cumulative Present Value of Cash Flows and Residual Value
This valuation item represents that portion of total Corporate Value (v5060) attributable to company operations and is the sum of these two accounts:
\[ v5020.00 \quad \text{Cumulative Present Value of Cash Flows} \]
\[ + \quad v5220.00 \quad \text{Present Value of Residual Value} \]
\[ = \quad v5030.00 \quad \text{Present Value of Cash Flows and Residual Value} \]

(v5010.00) Present Value of Cash Flow
Represents the value of each future period’s cash flow expressed in today's dollars. It is calculated by multiplying the Discount Factor (Kw) (v5000.01) by Cash Flow from Operations (SVA) (v5008). If Mid-Period discounting is elected, the Mid-Period Discount Factor (Kw) (v5000.05) is used instead of the Discount Factor (Kw) (v5000.01).

(v5060.00) Corporate Value
Total economic value of the company, comprises four components:
1. Present value of forecasted Cash Flow from Operations (v4100) during the forecast period;
2. PV of Residual Value (v5220)—the value of the company’s operations beyond the forecast period; and
3. Investments, comprising Total Marketable Securities (v2017), Long-Term Funding Asset (v2460) and Investments in Bonds and Stocks (v5.00.560).
4. Valuation adjustments for investments accounted for using the Cost or Equity Method of consolidation.

Corporate Value (v5060.00) is calculated as:
\[ (v5030.00) \quad \text{Cumulative PV of CF and Residual Value} \]
\[ + \quad (v2017.00) \quad \text{Total Marketable Securities (Last Historical Pd.)} \]
\[ + \quad (v2460.00) \quad \text{Long-Term Funding Asset (Last Historical Pd.)} \]
\[ + \quad (v5.00.560) \quad \text{Investments in Stocks and Bonds} \]
\[ + \quad (v5.00.900) \quad \text{Valuation Adj. for Cost and Equity Methods} \]
\[ = \quad (v5060.00) \quad \text{Corporate Value} \]
(v5070.00) Shareholder Value (PV)

In simplest terms, the value of a company or business unit equals the combined values of debt plus equity. The total value of the company is called Corporate Value (v5060), and the value of the equity portion is Shareholder Value. Shareholder Value (v5070.00) is expressed in present value terms. In general:

\[ \text{Corporate Value} = \text{Debt (v5060.00)} + \text{Shareholder Value (v5070.00)} \]

The debt portion of Corporate Value (v5060) refers to the current value of all the firm’s future obligations. These obligations are Market Value of Debt (v5.00.500), Underfunded Pension Liabilities (v5.00.520), and Market Value of Other Obligations (v5.00.540).

Additionally, an adjustment must be made for the minority interest value of a company or business unit that is consolidated into the total Corporate Value using the Minority Interest Method.

Shareholder Value (v5070.00) is calculated as:

\[ \text{Corporate Value} - \text{Market Value of Debt (v5.00.500)} - \text{Underfunded Pension Liability (v5.00.520)} - \text{Market Value of Other Obligations (v5.00.540)} - \text{Valuation Adj. for Min. Interest: SVA (v5.00.920)} = \text{Shareholder Value (v5070.00)} \]

(v5080.00) Shareholder Value per Share (PV)

A critical measure of the financial and operational health of a company that reflects the economic value of shareholder investment in expected future operations.

Calculated as:

\[ \text{Shareholder Value (v5070.00)} / \text{Number of Shares Outstanding: Year End (v3400.00)} = \text{Shareholder Value per Share (v5080.00)} \]

(v5090.00) Premium/Discount Over/Under Market Price

When Shareholder Value per Share (v5080) differs from the Current Stock Price (v5.00.200), it implies that, according to your expectations for future performance, the market seems to be overvaluing or undervaluing the stock.

The Premium/Discount Over/Under Market Price (%) (v5090.00) of the stock offers you a comparison of the economic value of the stock (Shareholder Value per Share (v5080)) to the Current Stock Price (v5.00.200).

\[ \text{Premium/Discount Over/Under Market Price (%) (v5090.00)} = \frac{\text{Shareholder Value per Share (v5080.00)} - \text{Current Stock Price (v5.00.200)}}{\text{Current Stock Price (v5.00.200)}} \times 100 \]

496
(v5100.00) Perpetuity Operating Profit (after tax)

Calculated as:

\[(v1150.00) + (v5140.00) \times (1 - (v4.00.560))\]

where:

- (v1150.00) Operating Profit
- (v5140.00) Normalized Earnings Adjustment
- (v4.00.560) Residual Value Income Tax Rate

(v5110.00) Normalized Operating Profit Adjustment

Use this item to change, or “normalize,” for valuation purposes, the period-by-period values for Taxable Operating Profit (v3210) that you consider abnormally high or low because of prevailing industry or economic conditions that are not expected to continue. Under most methods of calculating residual value, taxable operating profit forms the basis for calculating residual value in each period. An unusually high or low value for Taxable Operating Profit (v3210) correspondingly overstates or understates Residual Value (v5030) for that period.

This item is useful when valuing companies in industries having cyclical sales and profits or that are particularly affected by the general economy.

If you enter adjustments for periods, the amount is added to Taxable Operating Profit (v3210) for each period entered and is used in calculating Residual Value (v5030). While it affects the valuation, it will not change Operating Profit (v1150) as it appears on the Income Statement in Strategic Finance.

For example, if you believed that the third-period Taxable Operating Profit (v3210) figure of $1,000 was abnormally high and should be normalized to $700, you would enter an adjustment of -300 in the third period.

Note: This adjustment is appropriate only if you are using a residual value method that uses a perpetuity cash flow in its calculation: Perpetuity Method, Growth in Perpetuity, and Value Growth Duration.

(v5120.00) Market-to-Book Ratio

Your estimate of the market-to-book ratio prevalent for this business in each forecast period.

Market-to-Book Ratio (v5120.00) is determined as follows:

\[
\frac{\text{Estimated Market Value of Business}}{\text{Common Equity}} \quad \text{(v2890.00)}
\]

Common Equity \quad \text{(v2890.00)}
The Residual Value (v5030) is calculated by multiplying the Estimated Market Value of Business by Common Equity (v2890), (which represents the book value of the company’s equity), adding the book value of debt in the last period.

Adding debt to the estimated market value of the equity to arrive at the total value of the company is recommended, because the value is being discounted by the cost of capital (costs of debt and equity) rather than solely the cost of equity.

This total must be discounted by the Discount Factor (v5000.01) to express it in present value terms. It is used in the Market-to-Book Ratio Residual Value (v5190).

**(v5130.00) Price/Earnings Ratio**

This item represents your estimate of the Price/Earnings Ratio prevalent for this business in each forecast period. A Price/Earnings Ratio is calculated as follows:

Estimated Stock Price

Earnings Per Share (v6125.00)

where Earnings Per Share (v6125) is calculated as:

Income Available for Common Shareholders (v1850.00)

No. of Common Shares: Wtd. Avg. (v3410.00)

The Residual Value is calculated by multiplying this number by adjusted Income Available for Common Shareholders (v1850). It is used in the Price/Earnings Residual Value method (v5200).

Adding debt to the estimated market value of the equity to arrive at the total value of the company is recommended, because the value is being discounted by the cost of capital (cost of debt and equity).

**(v5140.00) Normalized Earnings Adjustment**

Use this item to change, or “normalize,” for valuation purposes, period-by-period values for Income Available for Common Shareholders (v1850) that are considered abnormally high or low because of prevailing industry or economic conditions in that year that are not expected to continue. Under the Price/Earnings Residual Value (v5200) method of calculating residual value, Income Available for Common Shareholders (v1850) forms the basis for calculating residual value in each period. Unusually high or low values for Income Available for Common Shareholders (v1850) correspondingly overstate or understate residual value.

If you enter adjustments, the amount is added to Income Available for Common Shareholders (v1850) and is used in calculating the Price/Earnings Residual Value (v5200) for valuation. Because it appears on the Income Statement, it will not change Income Available for Common Shareholders (v1850).

For example, if you believed that a final-period amount for Income Available for Common Shareholders (v1850) of $2,000 was abnormally high and should be normalized to $1,200, you would enter an adjustment of -$800 in the final period. It is used in the Price/Earnings Residual Value (v5200) calculation.
**Debt Discount/(Premium)**

Used in the calculation of the Market-To-Book Residual Value to adjust the book value of Debt and/or Preferred Stock to market values.

**Perpetuity Residual Value**

Taxable Operating Profit in the last forecast period less taxes (NOPAT), divided by the Long-Term Cost of Capital. The Perpetuity Residual Value method assumes no additional growth from investments, thus discounts a steady stream of cash flows infinitely. If you think that your business will grow beyond the forecast period, we recommend that you use another perpetuity method to calculate the residual value.

**Growing Perpetuity Residual Value**

Similar to the Perpetuity Residual Value, except that you can forecast growth in the cash flows (profits) for all years beyond the forecast period. You may select this method from the Shareholder Value Model Options dialog and input your assumption for growth in profits throughout the perpetuity.

**Value Growth Duration Perpetuity Value**

Similar to the Perpetuity Residual Value, except that you can forecast growth in the cash flows (profits) for years beyond the original forecast period. You may select this method from Shareholder Value Model Options and input assumptions for years of growth and percentage of growth in profits throughout that period. Use this method to forecast for several years although you believe that your opportunity to earn beyond your cost of capital (the value growth duration) is greater than the selected time frame. Thus, you may forecast growth in the Taxable Operating Profit beyond your forecast period, making up the rest of your assumed value growth duration.

**Liquidation Residual Value**

Your estimate, in future value currency, of the “price tag” of the business in each year of the forecast period, based on your expectations of prevailing conditions in that period. You must incorporate the costs of liquidation, including such items as transaction costs and recapture tax, in this value.

**Market-to-Book Residual Value**

Calculated as:

\[ ((v2890.00) \times (v5120.00)) + (v3510.00) - (v5150.00) = (v5190.00) \]
where:
- (v2890.00) Common Equity
- (v5120.00) Market to Book Ratio
- (v3510.00) Total Debt and Preferred Stock
- (v5150.00) Debt Discount/(Premium)
- (v5190.00) Market to Book Residual Value

**(v5200.00) Price/Earnings Residual Value**

Calculated as:
\[
(((v1850.00) + (v5140.00))*(v5130.00)) + (v3510.00) - (v5150.00)
\]

where:
- (v1850.00) Income Available for Common Shareholders
- (v5140.00) Normalized Earnings Adjustment
- (v5130.00) Price/Earnings Ratio
- (v3510.00) Total Debt and Preferred Stock
- (v5150.00) Debt Discount/(Premium)

This variable is a future value discounted back to present value terms using the Discount Factor (v5000.01) to calculate Present Value of Residual Value (v5220).

**(v5210.00) Future Value of Residual Value**

Individual residual value figures for each period in the forecast. These values represent the residual value of the company at the end of each period, based on the method you use to calculate residual value.

**(v5220.00) Present Value of Residual Value**

Portion of total corporate value attributable to operations beyond the final year of the forecast period, expressed in today's currency. It is calculated by discounting the Future Value of Residual Value (v5210) by the Discount Factor (v5000.01).

The value of a company is determined by expectations of what will happen during and after the forecast period. The portion of Corporate Value (v5060) contributed by expectations about the post-forecast period is called the residual value, and, in present value terms, the Present Value of Residual Value (v5220.00).
(v5300.00) Cost of Equity (Ke)

Rate of return demanded by equity investors. The Cost of Equity, using the Capital Asset Pricing Model Approach equals:

Cost of Equity (Ke) = Risk Free Rate (Rf) + (Beta * Market Risk Premium)

Cumulative Present Value of Cash Flows (v5020.00)

The Cumulative Present Value of Cash Flows (v5020.00) represents that portion of total Corporate Value (v5060) attributable to cash flows generated during the forecast period. It is the sum of the present value of the individual forecasted cash flows.

Present Value of Cash Flow (v5010.00) Cumulative PV of Cash Flows (v5020.00)

Year 1 $10 $10
Year 2 $15 $25
Year 3 $25 $50

(v5300.01) Discount Factor (Ke)

Used to calculate the Present Value of Equity Residual Value (v5520).

(v5300.02) Future Value Factor (Ke)

Not used in Strategic Finance in formulas but calculated and available to use in Freeform formulas. The Future Value Factor (Ke) can determine the future value of a stream of dividends, based upon the cost of equity and the number of years into the future you want to value them.

(v5300.03) Accumulation Factor (Ke)

Used when calculating discount factors in nonaggregate periods such as months and quarters.

(v5300.05) Mid-Period Discount Factor (Ke)

Used instead of the Discount Factor (Ke) (v5300.01) when Mid-Period discounting is selected.

(v5300.06) Mid-Period Future Value Factor (Ke)

Used instead of the Future Value Factor (Ke) (v5300.02) when Mid-Period discounting is selected.

(v5305.00) Long-Term Cost of Equity (%)

Used to calculate the Residual Values for the Dividend Discounting Valuation Method in Strategic Finance. Using cost of equity to calculate residual value for the Dividend Discount Approach allows you to assign different required rates of return to the post-planning horizon.
period and forecast period. This feature increases your flexibility in modeling the forecast period and residual value of the company.

Forecasting different costs of equity for different periods is not recommended unless you expect the company to 1.) operate in businesses with substantially different risk in the future, or 2.) go through a period when its capital structure is suboptimal.

Enter the input as a percentage.

(v5305.03) Accumulation Factor (LT Ke)
Used when calculating discount factors in nonaggregate periods such as months and quarters.

(v5308.00) Common Dividends DDM
Receives common dividends as defined by Common Dividends (v1900).

(v5310.00) Present Value of Dividend
Calculated by multiplying Common Dividends (v1900) by the Discount Factor (Ke) (v5300.01) or the Mid-Period Discount Factor (Ke) (v5300.05), if Mid-Period discounting is selected.

(v5320.00) Cum. PV of Dividends
Incorporates the value of the Cum. PV of Dividends (v5320) and the Present Value of Equity Residual Value (v5520). Cum. PV of Dividends (v5320.00) is calculated as:

\[
\text{(v5320.00)} \text{ Cum. PV of Dividends (prior period)} + \text{(v5310.00)} \text{ Present Value of Dividend} = \text{(v5320.00) Cum. PV of Dividends}
\]

(v5330.00) Cum. PV of Dividends and Equity Residual Value
\[
\text{(v5320.00) Cum. PV of Dividends} + \text{(v5520.00) Present Value of Equity Residual Value} = \text{(v5330.00) Cum. PV of Divid. and Equity Residual Value}
\]

(v5370.00) Estimated Equity Value
Estimated Equity Residual Value (v5370.00) is calculated as follows:

\[
\text{(v5330.00) Cum. PV of Dividends and Equity Res. Value}
\]
+ (v5.00.720) Market Value of Other Assets
- (v5.00.700) Market Value of Other Liabilities
+ (v2015.00) Excess Marketable Securities

= (v5370.00) Estimated Equity Value

**(v5380.00) Equity Value Per Share**

Estimated Equity Value (v370) divided by the Number of Common Share: Year End (v3400.00).

**(v5390.00) Premium/Discount Over/Under Market**

When the Equity Value Per Share (v5380), or “Share Value,” differs from the Current Stock Price (v5.00.200), it implies that, according to your expectations of the future performance of the company, the market seems to be overvaluing or undervaluing the stock.

The premium or discount of the stock offers you a comparison of the economic value of the stock (Shareholder Value per Share) to the Current Stock Price.

Premium/Discount Over/Under Market Price (%) is calculated as follows:

$$\frac{(v5080.00) - (v5.00.200)) \times 100}{(v5.00.200)}$$

where:

- (v5080.00) Equity Value Per Share
- (v5.00.200) Current Stock Price

**(v5400.00) Affordable Dividend**

Affordable Dividend (v5400.00) is used with the Perpetuity Affordable Dividend (v5410) in the calculation of the Perpetuity Dividend Residual Value (v5460) and is calculated as:

$$(v2015.00) + ((v4.00.760) \times ((v2490.00) - (v2015.00) - (v3510.00)))$$

where:

- (v2015.00) Excess Marketable Securities
- (v4.00.760) Residual Value Target Leverage Ratio (%)
- (v2490.00) Total Assets
- (v3510.00) Total Debt and Preferred Stock
**(5410.00) Perpetuity Affordable Dividend**

Used with the Affordable Dividend (v5400.00) in calculating the Perpetuity Dividend Residual Value (v5460) using this formula:

\[(v4.00.780) \times ((v2490.00) - (v2015.00)) \times (1 - (v4.00.760))\]

where:
- (v4.00.780) Long-Term Return on Book Equity
- (v2490.00) Total Assets
- (v2015.00) Excess Marketable Securities
- (v4.00.760) Residual Value Target Leverage Ratio (%)

***(v5420.00) Market-to-Book Equity Ratio***

Used in the calculation of Market-to-Book Equity Residual Value (v5490).

**(v5430.00) Price/Earnings Equity Ratio**

Used in the calculation of Price/Earnings Equity Residual Value (v5500).

**(v5440.00) Normalized Earnings Adjustment**

Use this item to change, or “normalize,” for valuation purposes, period-by-period values for Income Available for Common Shareholders (v1850) that you consider abnormally high or low because of prevailing industry or economic conditions in that year that are not expected to continue. Under the Price/Earnings Equity Residual Value (v5500) method of calculating residual value, Income Available for Common Shareholders (v1850) forms the basis for calculating residual value in each period. Unusually high or low values for Income Available for Common Shareholders (v1850) correspondingly overstate or understate residual value.

If you enter adjustment for periods, the amount is added to Income Available for Common Shareholders (v1850) in calculating Price/Earnings Equity Residual Value (v5500) for valuation. It will not change Income Available for Common Shareholders (v1850) as it appears on the Income Statement.

For example, if you believed that a final-period amount for Income Available for Common Shareholders (v1850) of $2,000 was abnormally high and should be normalized to $1,200, you would enter an adjustment of -$800 in the final period. It is used in the Price/Earnings Equity Residual Value (v5500) calculation.

**(v5460.00) Perpetuity Dividend Residual Value**

Calculated as:

Afford. Dividend (v5400.00) + Perp. Afford. Dividend (v5410.00)
Long-Term Cost of Equity (v5305.00)

Present Value of Equity Residual Value (v5520.00)

The Present Value of Equity Residual Value (v5520.00) is calculated by discounting the Future Value of Equity Residual Value (v5510) by the Discount Factor (Ke) (v5300.01).

**(v5470.00) Growing Dividend in Perpetuity Value**

Similar to the Perpetuity Dividend Residual Value, except that you can forecast growth in the dividends for all years beyond the forecast period. You may select this method from the Dividend Discount Model Options dialog and input your assumption for growth in dividends throughout the perpetuity.

**(v5475.00) Value Growth Duration Perpetuity Value**

Similar to the Perpetuity Dividend Residual Value, except that you can forecast growth in the dividend for years beyond the original forecast period. You may select this method from Dividend Discount Model Options and input your assumptions for how many years of growth and percentage of growth in dividends throughout that period. This method is commonly used to forecast for several years when dividends continue to grow beyond the selected time frame. Thus, you may forecast growth in the dividend beyond your forecast period, making up the rest of your assumed dividend discount value growth duration.

**(v5480.00) Equity Liquidation Value**

Your estimate, in future value currency, of the “price tag” of the business in each year of the forecast period, based on your expectations of prevailing conditions in that period. Incorporate the costs of liquidation, including transaction costs and recapture tax, in this value.

**(v5490.00) Market-to-Book Equity Residual Value**

Calculated by multiplying Common Equity (v2890) by the Market-to-Book Equity Ratio (v5420).

**(v5500.00) Price/Earnings Equity Residual Value**

Price/Earnings Equity Residual Value (v5500.00) is calculated as: $((v1850.00) + (v5440.00)) \times (v5430.00)$

where:

- (v1850.00) Income Available for Common Shareholders
- (v5440.00) Normalized Earnings Adjustment
(v5510.00) Future Value of Equity Residual Value

The value of the residual in the nth period, (at the end of the forecast period). This value is discounted back to the beginning of the forecast (today) to determine the Net Present Value of all future dividend streams.

(v5700.00) Economic Profit Required Return on Capital (RROC)

Discount rate used to determine the discount factor used to calculate the present value of economic profit. Enter the rate as a percentage.

(v5700.01) Discount Factor (Economic Profit RROC)

Used to present value Economic Profit (v5753) and the Residual Perpetuity (v5765).

(v5700.02) Future Value Factor (Economic Profit RROC)

Used to determine the value that Economic Profit (v5700) grows to over some length of time at some given interest rate. It is the value, in the future, of economic profit that exists today.

(v5700.03) Accumulation Factor (Economic Profit RROC)

Used when calculating discount factors in nonaggregate periods such as months and quarters.

(v5700.05) Midperiod Discount Factor (Economic Profit RROC)

While the Discount Factor (v5700.01) assumes that the Economic Profit (v5700) of a firm is received at period end, the Mid-Period Discount Factor (v5700.05) assumes that this profit (on average) occurs midpoint in the period, a more realistic assumption, because transactions that create profits occur throughout a given period.

(v5700.06) Mid-Period Future Value Factor (Economic Profit RROC)

Used to determine the value that Economic Profit (v5700) grows to over some length of time at some given interest rate. It is the value in the future, of economic profit, that exists today. This value differs from Future Value Factor (Economic Profit RROC) because it uses mid-period discounting rather than end-of-period discounting.
(v5702.00) Economic Profit RROC %
By default, this calculated account appears on the standard ratios page. It backs into the input for Economic Profit (v5700), determined by the difference between the firm’s rate of return and its cost of capital. Enter the number as you would other percentages (“10” for 10%).

(v5705.00) Long-Term Required Return (%)
The rate, similar to the long-term cost of capital in the Shareholder Value model, used to discount the residual value of the economic profit.

(v5710.00) Book Value (Before Adjustments)
The value in this account, calculated by subtracting total operating liabilities from total operating assets, represents the net operating assets of the firm.

(v5715.00) Economic Profit Adjustment to Assets
Adjusts Book Value (v5710).

(v5720.00) Economic Profit Adjustment to Liabilities
Adjusts Book Value (v5710).

(v5725.00) Adjusted Book Value
This account is calculated by adding the net effect of Economic Profit Adjustment to Assets (v5715) and Economic Profit Adjustment to Liabilities (v5720) to Book Value (v5710).

It is calculated as:

\[
(v5710.0) \text{ Book Value (Before Adjustments)} \\
+ (v5715.0) \text{ Economic Profit Adjustment to Assets} \\
- (v5720.0) \text{ Economic Profit Adjustment to Liabilities} \\
= (v5725.0) \text{ Adjusted Book Value}
\]

(v5735.00) Net Operating Profit After Tax (NOPAT)
Represents the after-tax operating profit of a firm. Used to determine the economic profit of the firm and calculated by subtracting Total Taxes on Operations (v3280) from Operating Profit (v1150).
(v1150.00) Operating Profit

- (v3280.00) Total Taxes on Operations

= (v5735.00) NOPAT

**(v5740.00) Economic Profit Adjustment to NOPAT**

Used to make necessary adjustments to NOPAT (v5735).

**(v5745.00) Economic Profit NOPAT**

Adjusted NOPAT, calculated by adding Economic Profit Adj. to NOPAT (v5740) to NOPAT (v5735).

\[
\text{NOPAT} + \text{Economic Profit Adj to NOPAT} = \text{Economic Profit NOPAT}
\]

**(v5750.00) Economic Profit**

After-tax operating profit less the charge on invested capital, is calculated:

\[
\text{Economic Profit NOPAT} - \text{Capital Charge} = \text{Economic Profit}
\]

**(v5753.00) Economic Profit NOPAT (EP)**

Used when calculating the Present Value of Economic Profit (v5755). Economic Profit NOPAT (EP) (v5753.00) differs from (v5750) in that it occurs only in forecast periods.

**(v5755.00) Present Value of Economic Profit**

Value of each future period’s economic profit in today’s dollars, calculated by multiplying the Discount Factor (v5700.01) by the dollar value of the future economic profit.
(v5760.00) Cumulative Present Value of Economic Profit

Represents that portion of total Economic Profit Corporate Value (v5785) attributable to economic profit generated during the forecast period. It is the sum of the present value of the individual forecasted cash flows.

PV of Economic Profit (v5755.00) Cumulative PV of EP

Year 1 $10 $10
Year 2 $15 $25
Year 3 $20 $45

(v5765.00) Residual Perpetuity

Valuation item represents the portion of total Economic Profit Corporate Value (v5785) attributable to the residual value of economic profit. This is the period that generates economic profit beyond the forecast horizon. It is calculated as follows:

\[((v5810.00) - ((v5705.00) \times (v5725.00)))\]

where:

- (v5810.00) Residual NOPAT for Perpetuity
- (v5705.00) Long-Term Required Return (%)
- (v5725.00) Adjusted Book Value

(v5770.00) Present Value of Residual Perpetuity

Residual value expressed in today’s dollars, calculated by multiplying the Residual Perpetuity (v5765) by the Discount Factor (Economic Profit RROC) (v5700.01).

(v5775.00) Total Present Value of Economic Profit

Portion of Total Economic Profit Corporate Value (v5785) attributable to the value of the company’s operation in the forecast horizon and the residual period, calculated as the sum of these two accounts:

\[(v5760.00) \text{ Cumulative PV of Economic Profit} + (v5770.00) \text{ Present Value of Residual Perpetuity} = (v5775.00) \text{ Total PV of Economic Profit}\]
(v5780.00) Beginning Book Value

This account represents the Adjusted Book Value (v5725) in the last historical period. If mid-period discounting is elected, Adjusted Book Value (v5725) is adjusted accordingly.

(v5785.00) Economic Profit Corporate Value

Total economic value of the firm, comprises:

- Present value of Economic Profits (v5760) generated during the forecast horizon
- Present value of Residual Perpetuity (v5770)
- Beginning Book Value (v5780)
- Investments, such as Total Marketable Securities (v2017), Long-Term Funding Asset (v2460), Investments in Stocks and Bonds (v5.00.560), and Investments consolidated using the Cost or Equity Method

Economic Profit Corporate Value (v5785.00) is calculated:

\[
\begin{align*}
(v5775.00) & \quad \text{Total PV of Economic Profit} \\
+ (v5780.00) & \quad \text{Beginning Book Value} \\
+ (v2017.00) & \quad \text{Total Marketable Securities (Last Hist. Pd)} \\
+ (v2460.00) & \quad \text{Long-Term Funding Asset (Last Historical Pd)} \\
+ (v5.00.560) & \quad \text{Investments in Stocks and Bonds} \\
+ V5.00.910 & \quad \text{Valuation Adj. for Cost and Equity Method: EP} \\
\end{align*}
\]

\[= (v5785.00) \quad \text{Economic Profit Corporate Value}\]

(v5790.00) Economic Profit Shareholder Value

Value of the equity of a company. The value that belongs to its shareholders, calculated as follows:

\[
\begin{align*}
(v5785.00) & \quad \text{Economic Profit Corporate Value} \\
- (v5.00.500) & \quad \text{Market Value of Debt} \\
- (v5.00.520) & \quad \text{Underfunded Pension Liabilities} \\
- (v5.00.540) & \quad \text{Market Value of Other Obligations} \\
- (v5.00.930) & \quad \text{Valuation Adj. for Minority Interest: EP} \\
\end{align*}
\]

\[= (v5790.00) \quad \text{Economic Profit Shareholder Value}\]
(v5795.00) Economic Profit Shareholder Value per Share
Shareholder value is a critical measure of the financial and operational health of a company and reflects the economic value of the shareholders’ investment in expected future operations, calculated as follows:

Economic Profit Shareholder Value (v5790.00)

Number of Common Shares: Year End (v3400.00)

(v5799.00) Premium/Discount Over/Under Current Stock Price
When Economic Profit Shareholder Value per Share (v5795) differs from the current stock price (v5.00.200), it implies that, according to your expectations of the future performance of the company, the market seems to be overvaluing or undervaluing the stock. The premium or discount of the stock offers you a comparison of the economic value of the stock to the current stock price:

\[(v5799.00) - (v5.00.200)\]

(v5.00.200)

where:
- (v5799.00) Economic Profit Shareholder Value per Share
- (v5.00.200) Current Stock Price

(v5810.00) Residual NOPAT for Perpetuity
Residual value of NOPAT (v5735), used in determining the Residual Perpetuity (v5765) of Economic Profit and calculated as follows:

\[((v3210) \times (1 - (v5.00.800))) + (v5.00.820)\]

where:
- (v3210.00) Taxable Operating Profit
- (v5.00.800) Economic Profit Residual Value Tax Rate
- (v5.00.820) Residual NOPAT Adjustment
(v6000.00) Gross Profit Margin

The profitability ratio tells you what proportion of Sales (Net) (v1030) is included in Gross Profit
The ratio is calculated as follows:

**Gross Profit (v1070.00)**

**Sales (Net) (v1030.00)**

Changes in the Gross Profit Margin can result from an increase or decrease in one or both of these factors:

- **Sales (Net) (v1030.00)**
- **Cost of Goods Sold (v1040.00)**

In evaluating which factors affect the Gross Profit Margin (v6000.00), determine which factors affect the future margin. For example, if the Gross Profit Margin (v6000.00) recently improved because of a Cost of Goods Sold (v1040) reduction, try to determine whether that margin can be sustained at even greater sales volumes. The drop in Cost of Goods Sold (v1040) may be due to a onetime change in depreciation policy or a switch from FIFO to LIFO.

**(v6005.00) Return on Sales**

Return on Sales (v6005.00) or Net Profit Margin is a profitability ratio that tells you what proportion of Sales (Net) (v1030) finds its way into Net Income (v1750).

\[
\text{Return on Sales} = \frac{\text{Net Income}}{\text{Sales (Net) (v1030.00)}}
\]

Accrual-based measures such as Net Income (v1750) and ROS (v6005.00) have limitations: they do not incorporate risk, the time value of money, or investment requirements, and they can be greatly affected by alternative accounting conventions.

**(v6010.00) Return on Equity**

Profitability ratio that calculates the accounting rate of return on stockholders' investment (based on year-end equity). The ratio is calculated as follows:

\[
\text{Return on Equity} = \frac{\text{Net Income (v1750.00)}}{\text{Common Equity (v2890.00)}}
\]

Accrual-based measures such as Net Income (v1750) and ROE (v6010.00) have limitations: they do not incorporate risk, the time value of money, or investment requirements, and they can be greatly affected by alternative accounting conventions.

A high return on equity does not necessarily imply positive cash flow. Unless cash flow is positive, the company may have difficulty sustaining its Common Dividends (v1900) despite a high ROE (v6100.00).
(v6015.00) Return on Assets/Inventory (ROA/ROI)

Profitability ratio, which measures the accounting rate of return on Total Assets (v2490), is calculated as: 

\[
\frac{(v1700.00) + (v1420.00)) - ((v3220.00) + (v1410.00))}{(v2490.00)}
\]

where:

- (v1700.00) Income After Taxes
- (v1420.00) Total Interest Expense
- (v3220.00) Interest Tax Shield
- (v1410.00) Interest Capitalized
- (v2490.00) Total Assets

These ratios have limitations: they are based on historical costs, do not incorporate risk or the time value of money, and can be greatly affected by alternative accounting conventions.

(v6020.00) Return on Net Assets

Profitability ratio that calculates the accounting rate of return on net assets, calculated as follows:

\[
\frac{(v1700.00) + (v1420.00)) - ((v3220.00) + (v1410.00))}{(v2490.00 - v2600.00)}
\]

where:

- (v1700.00) Income After Taxes
- (v1420.00) Total Interest Expense
- (v3220.00) Interest Tax Shield
- (v1410.00) Interest Capitalized
- (v2490.00) Total Assets
- (v2660.00) Total Current Liabilities

The exclusion of Total Current Liabilities (v2600) means that RONA (v6020.00) represents the accounting return on longer-term investments.

This ratio has limitations: it is based on historical cost, does not incorporate risk or the time value of money, and can be greatly affected by alternative accounting conventions.

(v6025.00) Change in Net Income

Period-by-period percentage change in Net Income (v1750).
**(v6040.00) Debt/Equity Ratio**

Leverage ratio measures the capital structure of the company, calculated as follows:

Total Debt and Preferred Stock (v3510.00)

Common Equity (v2890.00)

**(v6045.00) Debt/Total Capital Ratio**

Leverage ratio measures the capital structure of the company, calculated as follows:

Total Debt and Preferred Stock (v3510.00)

Total Capital (v3520.00)

**(v6050.00) Equity Ratio**

A leverage measure that calculates what proportion of Total Assets (v2490) is financed by Common Equity (v2890). The ratio is calculated as follows:

Common Equity (v2890.00)

Total Assets (v2490.00)

**(v6055.00) Times Interest Earned**

Leverage ratio that indicates the extent to which interest is covered by accounting earnings before interest and tax. It is calculated as follows:

Earnings Before Taxes (v1600.00) + Total Interest Expense (v1420.00)

Total Interest Expense (v1420.00)

**(v6065.00) Days in Receivables (avg.)**

Activity ratio measures the average time the company takes to collect cash for credit sales. The average ratio is calculated as follows:

\[ \frac{(\text{Beg. Accts Rec} + \text{End. Accts Rec})}{2} \times \text{No. Days in Period} \]

Sales (Net) (v1030.00)

where Accounts Receivable is (v2020).

A low Days in Receivables (v6065.00) ratio does not reliably indicate an efficient collections department; a restrictive credit policy also would decrease this ratio. The longer the collection period, the greater the company's working capital investment.
(v6070.00) Days in Payables (avg.)

Estimates how long, on average, the company takes to pay its trade creditors. The average ratio is calculated as follows:

\[ \frac{((\text{Beg. Accts Pay} + \text{End. Accts Pay}) / 2) \times \text{No. of Days in Period}}{\text{COGS}} \]

where Accounts Payable is (v2500).

A high ratio does not indicate effective working capital management. High levels also could reflect inadequate cash flow to cover the company’s obligations on a timely basis, which potentially could threaten continued purchase of supplies for operations.

(v6075.00) Inventory Turnover (avg.)

Activity ratio measures the average rate at which Inventory (v2040) moves through and out of the enterprise. The average ratio is calculated as follows:

\[ \frac{\text{Cost of Goods Sold} ((\text{Beg. Inventory} + \text{End. Inventory}) / 2)}{\text{Inventory}} \]

where Inventory is (v2040).

A high Inventory Turnover (v6075.00) ratio does not indicate efficient control over inventories; a company that is living from “hand to mouth” would have a high ratio. The Inventory Turnover (v6075.00) ratio is not strongly affected by the choice of LIFO versus FIFO inventory accounting methods because the impact of the method influences the numerator and denominator.

(v6080.00) Fixed Asset Turnover

An activity ratio that shows how intensively the company's assets are being used. The ratio is calculated as follows:

\[ \frac{\text{Sales (Net)}}{\text{Net Fixed Assets}} \]

The Fixed Asset Turnover (v6080.00) is dependent on the fixed capital intensity of your industry. Net Fixed Assets (v2200.00) is based on historical costs and depreciation policy.

A high Fixed Asset Turnover (v6080.00) ratio does not mean you could buy replacement assets today and achieve the same efficiency. A better measure of fixed capital intensity is the Incremental Fixed Capital Investment (F) ratio (v6185), which measures the investment in fixed capital required to support a $1 increase in sales.

(v6090.00) Days in Receivables

Activity ratio that measures the average time the company takes to collect cash for credit sales. The ratio for Days in Receivables (v6090.00) is calculated as follows:
Accounts Receivable (v2020.00) * Number of Days in Period

Sales (Net) (v1030.00)

A low Days in Receivables (v6090.00) ratio does not reliably indicate an efficient collections department; a restrictive credit policy also would decrease this ratio. The longer the collection period, the greater the company’s working capital investment.

**(v6095.00) Days in Payables**

Estimates how long, on average, the company takes to pay trade creditors. The ratio for Days in Payables (v6095.00) is calculated as follows:

\[
\text{Days in Payables} = \frac{\text{Accounts Payable} (v2500.00) * \text{Number of Days in Period}}{\text{Cost of Goods Sold} (v1040.00)}
\]

A high ratio does not indicate effective working capital management. High levels also could reflect inadequate cash flow to cover company obligations on a timely basis, which potentially could threaten continued purchase of supplies for operations.

**(v6100.00) Inventory Turnover**

Activity ratio measures the average rate at which inventories move through and out of the enterprise.

The ratio for Inventory Turnover (v6100.00) is calculated as follows:

\[
\text{Inventory Turnover} = \frac{\text{Cost of Goods Sold} (v1040.00)}{\text{Inventory} (v2040.00)}
\]

A high Inventory Turnover (v6100.00) ratio does not indicate efficient control over inventories; a company that is living from “hand to mouth” would have a high ratio. The Inventory Turnover (v6100.00) ratio is not strongly affected by the choice of LIFO versus FIFO inventory accounting methods because the impact of the method influences the numerator and denominator.

**(v6115.00) Current Ratio**

Liquidity ratio measures the company’s ability to cover short-term obligations with short-term assets. The ratio is calculated as follows:

\[
\text{Current Ratio} = \frac{\text{Total Current Assets} (v2100.00)}{\text{Total Current Liabilities} (v2600.00)}
\]

A low Current Ratio (v6115.00) does not necessarily indicate that a company is in difficulty; this ratio ignores the company’s reserve borrowing power.
Quick Ratio

The Quick (or Acid) Ratio (Quick Ratio) is a liquidity ratio that measures the ability of the company to pay off short-term obligations from its most liquid assets. Calculated as follows:

\[
\text{Quick Ratio} = \frac{(\text{Cash}) + (\text{Total Marketable Securities}) + (\text{Net Account Receivables})}{(\text{Total Current Liabilities})}
\]

where:

- Cash
- Total Marketable Securities
- Net Account Receivables
- Total Current Liabilities

A low Quick Ratio (Quick Ratio) does not necessarily indicate that a company is in difficulty. First, this ratio ignores the company's reserve borrowing power (such as lines of credit) that are not recorded but can be used to meet short-term obligations.

Second, rapid sales growth usually increases the required working capital investment and can distort the Quick Ratio (Quick Ratio). For example, a rapid increase in Inventory (not included in the numerator) funded by Accounts Payable (which is included in the denominator), causes a sudden Quick Ratio (Quick Ratio) decline.

Working Capital

Net amount of a company's liquid resources, it is the amount available to service the financial demands of the operating cycle, calculated as follows:

\[
\text{Working Capital} = (\text{Total Current Assets}) - (\text{Total Current Liabilities}) + (\text{Notes Payable}) + (\text{Other Current Liabilities - Non-Operating})
\]

Operating Working Capital

The portion of Working Capital (Working Capital) attributable to the day-to-day operations of the company. The investing, financing, and other nonoperating portions are subtracted from Working Capital (Working Capital), leaving only the operating portion:

\[
\text{Operating Working Capital} = (\text{Total Current Assets}) - (\text{Total Marketable Securities})
\]
Traditional accounting measure of corporate performance for companies with a simple capital structure that reflects the net income available for each common share. The ratio is calculated as follows:

Income Available for Common Shareholders (v1850.00)

No. of Common Shares: Wtd. Average (v3410.00)

EPS growth does not necessarily lead to shareholder returns, even over longer periods of time. EPS growth can be achieved not only when management is investing at or above the market discount rate (cost of capital), but also when it is investing below the discount rate and thereby decreasing the value of the stock. A high EPS (v6125.00) ratio does not necessarily imply that the company has a positive cash flow and an ability to pay a high proportion of these earnings in dividends.

The accounting dividend payout ratio, or proportion of earnings that are distributed, can be calculated by dividing Dividends per Share (v6140) by Earnings Per Share (v6125.00). EPS (v6125.00) also is used to calculate the Price/Earnings (v5130) ratio, by dividing the Stock Price (v5.00.200) by EPS (v6125.00). A high Price/Earnings ratio may indicate these investor beliefs:

1. They expect high dividend growth
2. They view the stock as low risk and therefore are satisfied with low returns
3. They expect average company growth but a high payout ratio

Traditional accounting measure of corporate performance for companies with a complex capital structure that reflects the amount of net income available for common shares plus all potentially dilutive securities.

The ratio is calculated as follows:

\[
\frac{(v1850.00) + (v3450.00)}{(v3410.00) + (v3430.00)}
\]

where:

- (v1850.00) Income Available for Common Shareholders
- (v3450.00) Fully Diluted EPS Adjustment to Net Income
- (v3410.00) Number of Common Shares: Wtd. Average
- (v3430.00) Potentially Dilutive Securities
(v6140.00) Dividends per Share

Measures the cash return to shareholders on their investment. The ratio is calculated as:

Common Dividends (v1900.00)

No. of Common Shares: Wtd. Average (v3410.00)

(v6145.00) Cash Flow per Share

Cash Flow per Share (v6145.00), when used over an extended period of time with Marketable Securities (v2017) and Unused Debt Capacity (v3560), can measure a company’s ability to pay dividends. Cash Flow from Operations (v4100), on which Cash Flow per Share (v6145.00) is based, is a principal component of Shareholder Value (v5070). Cash Flow per Share (v6145.00) is defined as follows:

Cash Flow from Operations (v4100.00)

No. of Common Shares: Wtd. Average (v3410.00)

Note: This definition differs from another common formula used by security analysts, where depreciation expense and amortization of intangibles are added to net income to arrive at an estimation for cash flow used in their cash flow per share calculations.

Cash Flow from Operations (v4100) (combined with the changes in Debt Capacity) must be sufficient to cover investment requirements and interest payments on debt. Unless it is, the company’s solvency is deteriorating, and remedial steps must be taken before the company’s financial position is jeopardized.

(v6150.00) Book Value per Share

Traditional accounting measure of the value of a company.

(v6155.00) Change in Earnings Per Share (%)

Period-by-period percentage change in Earnings Per Share (v6125).

(v6175.00) Sales Growth Rate (G)

A key Strategic Finance account used in determining Shareholder Value (v5070). By estimating the rate of anticipated sales growth, you evaluate shareholder value created from the projected cash flow, given your assumptions about other key accounts:

- Operating Profit Margin (P) (v6180)
- Incremental Working Capital Investment (W) (v6190)
If you compare the sales growth of a company to the growth of the overall market, you can determine whether the company is gaining or losing market share. High sales growth may not indicate good economic performance. If a company is growing rapidly, there may be lower margins (due to lower prices or greater promotion expenses) and greater investments required in working and fixed capital. If those factors strain the financial resources of the company, its financial position and solvency may be jeopardized.

**(v6180.00) Operating Profit Margin (P)**

The Operating Profit Margin (P) (v6180.00) is a pretax, pre-interest measure:

\[
\text{Operating Profit Margin (P)} = \frac{\text{Taxable Operating Profit}}{\text{Sales Net}}
\]

The Operating Profit Margin (P) (v6180.00) is one of the key Strategic Finance accounts affecting Shareholder Value (v5070).

**(v6185.00) Incremental Fixed Capital Investment (F)**

The portion of total expenditures Fixed Capital Investment (v2170.01), for the capacity expansion necessary to support incremental (increased) sales. It is defined as capital expenditures in excess of depreciation expense and net capitalized interest. Depreciation expense is assumed to approximate the cost of replacing equipment to maintain the plant without adding capacity. As part of the financing decision, not the investment decision, Interest Capitalized (v1410) is excluded from Incremental Fixed Capital Investment (F) (v6185.00).

When expressed as a percentage of incremental Sales (v1030), it is known as “F,” a key Strategic Finance account affecting Shareholder Value (v5070):

\[
\frac{\text{Fixed Capital Inv.} - \text{Depr. Exp (Funds)}}{\text{Sales Net} - \text{Sales Net (prior period)}}
\]

Depreciation Expense (Funds) (v2190.01), based on historical costs, may understate the cost of replacing equipment when that cost has increased because of inflation and regulatory forces (such as environmental controls). The “F” (v6185.00) ratio does account for greater replacement costs, because they are captured in your estimate of total capital expenditures, Fixed Capital Investment (v2170.01). The numerator, therefore, impounds the cost of expansion and the cost of replacing equipment.

Whether the historical value of this account is a reasonable estimate for the next few years is dependent upon factors such as these:
Your assessment of the speed and extent to which increased fixed capital costs can be passed on to customers through the selling price

Whether assets can be used more effectively

Whether the number of plants can be reduced

**Incremental Working Capital Investment (W)**

The Incremental Working Capital Investment (v4070) required for operations is the increase in Total Current Assets (v2100) (excluding Marketable Securities (v2017)) minus the Increase in Total Current Liabilities (v2600) (excluding the Current Portion of Long-Term Debt (v2510) and Notes Payable (v2520)).

When this investment is expressed as a percentage of incremental or increased Sales (v1030), it is known as “W” (v6190.00), a key Strategic Finance account affecting Shareholder Value (v5070):

\[
\text{Incremental Working Capital Investment (W)} = \frac{\text{Sales (Net)} - \text{Sales (Net) (prior period)}}{\text{Incremental Working Capital Investment (W)}}
\]

Incremental Working Capital Investment (W) (v6190.00) excludes the increases in Marketable Securities (v2017), Current Portion of Long-Term Debt (v2510), and Notes Payable (v2520) because those accounts are financing issues and are not part of the cash required for operations.

Incremental Working Capital Investment (v4070) represents the actual investment in receivables, inventory, and so on necessary to support sales growth. Because this investment is part of the company’s basic production and administrative function, it is included in the calculation of Cash Flow from Operations (v4100).

Past year-to-year balance sheet data may not provide a good measure of the increase or decrease in funds required for the future. Past figures can be misleading for two reasons:

1. Year-end figures on the balance sheet may not reflect the average or usual needs of the business during that year.
2. Estimating the cost of increased inventories based on the difference between the beginning and ending inventories balances may yield unreliable results.

**Cash Income Tax Rate (Tc)**

Income Taxes on Operations (v3240) represents the portion of total income taxes that is applicable to operating profit only (Taxable Operating Profit (v3210)). Income Taxes on Operations (v3240) is the total taxes on Taxable Operating Profit (v3210) for a fiscal year that paid by installments or are payable within 12 months. (The latter are shown as a liability in Income Taxes Payable (v2530) at year end.)

The Cash Income Tax Rate (v6195) is calculated as follows:

\[
\text{Total Taxes on Operations (v3280.00)}
\]

\[
\text{Taxable Oper. Profit (v3210.00) + Gain on Sale of Assets (v1170.00)}
\]
(v6200.00) Cost of Capital (K)

This account appears on the Financial Ratios Report and displays the Cost of Capital (v5000) amount.

Cost of Capital (Kw) (v5000.00)

Cost of Capital (v5000.00) is the weighted average costs of debt and equity.

Enter the rate as a percentage. Using one rate for all periods is recommended.

Cost of Capital (Kw) forms the basis of the Discount Factor (Kw) (v5000.01) that is multiplied by future cash flows to calculate their present value.

Strategic Finance distinguishes between the Cost of Capital (v5000) during the forecast period and in the residual period, Long-Term Cost of Capital (%) (v5005). It is generally recommended that Cost of Capital (Kw) (v5000.00) and Long-Term Cost of Capital (%) (v5005) share input.

(v6260.00) Operating Profit Cash Interest Coverage

Tells you the extent to which the operating earnings of a company are sufficient to cover the cash interest expense which the company is incurring in the current period. This account appears in the Interest Expense section of the Funding Analysis Report. It is calculated as follows:

Operating Profit (v1150.00)

Int. Exp. (v1400.00) - Non-Cash Int. on L-T Debt: Sch. (v2660.03)

(v6265.00) Operating Cash Flow Cash Interest Coverage

The cash flow before discretionary investments (such as fixed capital expenditures), which is available to meet current cash interest obligations. This account appears in the Interest Expense section of the Funding Analysis Report. It is calculated as follows:

Cash from Operating Cycle (v4320.00)

Total Cash Interest Expense (v3590.00)

(v6300.00) Increase in Shareholder Value

(Increase in Shareholder Value (%) (6305.00))

Appears on the Financial Ratios Report and displays the period-to-period currency and percentage changes in Shareholder Value (v5070), calculated using the Cum. PV of Cash Flows and Residual Value (v5030).

(v6310.00) Increase in DDM Value

(Increase in DDM Value (v6315.00))
Appears on the Financial Ratios Report and displays the period-to-period currency and percentage changes in the Cum. PV of Dividend and Equity Residual Value (v5330).

**(v6320.00) Return on Invested Capital (%)**

Calculated as:

- **Economic Profit NOPAT (v5745.00)**
- **Adjusted Book Value (v5725.00) (prior period)**
- **Residual Value Income Tax Rate (v4.00.560)**

Residual Value Income Tax Rate (v4.00.560) is the tax rate applied to Taxable Operating Profit (v3210) during the years following the forecast period.

**(v6325.00) E.P. Spread (ROIC-RROC)**

Economic Profit Spread (ROIC - RROC) (%) (v6325.00) is calculated as follows:

\[
(v6320.00) \text{ Return on Invested Capital} \% - (v5702.00) \text{ Economic Profit RROC} \% = (v6325.00) \text{ E.P. Spread (ROIC - RROC)} \% 
\]

**(v6330.00) Economic Profit**

Calculated as: E.P. Spread (ROIC -RROC) (%) * Adjusted Book Value

where:

- (v6325.00) E.P. Spread (ROIC -RROC) (%)
- (v5725.00) Adjusted Book Value (prior period)

**(v6500.00 - v6520.00) Debt Covenants #1 - #10**

Five accounts can be used to enter debt covenant requirements and test your ability to meet them. Each account can have up to 999 subaccounts to accommodate covenants in your analysis. To accommodate required inputs and outputs for covenant tests, the Debt Covenant (v6500.00-v6520.00) accounts in Oracle Hyperion Strategic Finance have three related accounts, meaning that they automatically have additional associated accounts:

**(v65xx.00) Covenant Test Parameter**

Input account is accessible from the Financial Accounts view or the Account Input dialog. Enter a test parameter amount for each period in the file (such as Working Capital of $200MM in
1995, $250MM in 1996). You can enter a different test parameter from period to period. In the User Defined Account dialog, you can select the output type and units.

**(v65xx.01) Actual Performance Equation**

Accessible from the User Defined Account dialog. Enter a formula that measures the actual performance of the entity in the analysis such as Working Capital = Total Current Assets - Total Current Liabilities, using the formula \( v2100 - v2600 \). Also, select the output type and units.

**(v65xx.02) Covenant Result**

Accessible from the User Defined Account dialog, it calculates the difference between the test parameter and actual performance results. It measures the result of the entity performance relative to the covenant test it is measured against. The default formula entered for this account is: \( v65xx.01 - v65xx.00 \)

Actual Test

where a typical usage example might be for a Minimum Working Capital covenant. The result is a negative number if the covenant is not met (actual is less than the test parameter).

You can change the default formula to reflect the “Test - Actual” \( (v65xx.00 - v65xx.01) \), where a typical usage example might be for a Maximum Debt to Equity covenant. The result is a negative number if the covenant is not met (test parameter is less than the actual amount).

These accounts are found in the Model Options dialog.
See bang character.

See missing data.

A set of operations that a user can perform on a resource.

Input and output data specifications for data-mining algorithms.

The process by which accounts accept input data in the consolidated file. Blocked accounts do not receive their value through the additive consolidation process.

Accounts which have their values set to zero in the consolidated file during consolidation.

A property that determines how an account’s value flows over time and its sign behavior. Account type options can include expense, income, asset, liability, and equity.

A visual, hierarchical representation of the responsibility, reporting, and dependency structure of the accountability teams (also known as critical business areas) in an organization.

A service whose Run Type is set to Start rather than to Hold.

A system in which all the available members can service requests, and no member is idle. An active-active system generally provides more scalability options than an active-passive system. Contrast with active-passive high availability system.

A cell comprising several cells. For example, a data cell that uses Children(Year) expands to four cells containing Quarter 1, Quarter 2, Quarter 3, and Quarter 4 data.

A type of function, such as sum or calculation of an average, that summarizes or performs analysis on data.

A limit placed on an aggregated request line item or aggregated metatopic item.
aggregate storage database  The database storage model designed to support large-scale, sparsely distributed data which is categorized into many, potentially large dimensions. Upper level members and formulas are dynamically calculated, and selected data values are aggregated and stored, typically with improvements in overall aggregation time.

aggregate view  A collection of aggregate cells based on the levels of the members within each dimension. To reduce calculation time, values are pre-aggregated and stored as aggregate views. Retrievals start from aggregate view totals and add up from there.

aggregation  The process of rolling up and storing values in an aggregate storage database; the stored result of the aggregation process.

aggregation script  In aggregate storage databases only, a file that defines a selection of aggregate views to be built into an aggregation.

alias table  A table that contains alternate names for members.

alternate hierarchy  A hierarchy of shared members. An alternate hierarchy is based upon an existing hierarchy in a database outline, but has alternate levels in the dimension. An alternate hierarchy allows the same data to be seen from different points of view.

ancestor  A branch member that has members below it. For example, the members Qtr2 and 2006 are ancestors of the member April.

appender  A Log4j term for destination.

application  1) A software program designed to run a specific task or group of tasks such as a spreadsheet program or database management system; 2) A related set of dimensions and dimension members that are used to meet a specific set of analytical requirements, reporting requirements, or both.

application administrator  A person responsible for setting up, configuring, maintaining, and controlling an application. Has all application privileges and data access permissions.

application currency  The default reporting currency for the application.

Application Migration Utility  A command-line utility for migrating applications and artifacts.

application server cluster  A loosely joined group of application servers running simultaneously, working together for reliability and scalability, and appearing to users as one application server instance. See also vertical application cluster and horizontal application cluster.

area  A predefined set of members and values that makes up a partition.

arithmetic data load  A data load that performs operations on values in the database, such as adding 10 to each value.

artifact  An individual application or repository item; for example, scripts, forms, rules files, Interactive Reporting documents, and financial reports. Also known as an object.

assemblies  Installation files for EPM System products or components.

asset account  An account type that stores values that represent a company’s assets.

assignment  The association of a source and destination in the allocation model that controls the direction of allocated costs or revenue flow.

asymmetric topology  An Oracle Fusion Middleware Disaster Recovery configuration that is different across tiers on the production site and standby site. For example, an asymmetric topology can include a standby site with fewer hosts and instances than the production site.

attribute  A characteristic of a dimension member. For example, Employee dimension members may have attributes of Name, Age, or Address. Product dimension members can have several attributes, such as a size and flavor.

attribute association  A relationship in a database outline whereby a member in an attribute dimension describes a characteristic of a member of its base dimension. For example, if product 100-10 has a grape flavor, the product 100-10 has the Flavor attribute association of grape. Thus, the 100-10 member of the Product dimension is associated with the Grape member of the Flavor attribute dimension.
**Attribute Calculations dimension** A system-defined dimension that performs these calculation operations on groups of members: Sum, Count, Avg, Min, and Max. This dimension is calculated dynamically and is not visible in the database outline. For example, using the Avg member, you can calculate the average sales value for Red products in New York in January.

**attribute dimension** A type of dimension that enables analysis based on the attributes or qualities of dimension members.

**attribute reporting** A reporting process based on the attributes of the base dimension members. See also base dimension.

**attribute type** A text, numeric, Boolean, date, or linked-attribute type that enables different functions for grouping, selecting, or calculating data. For example, because the Ounces attribute dimension has the type numeric, the number of ounces specified as the attribute of each product can be used to calculate the profit per ounce for that product.

**authentication** Verification of identity as a security measure. Authentication is typically based on a user name and password. Passwords and digital signatures are forms of authentication.

**authentication service** A core service that manages one authentication system.

**auto-reversing journal** A journal for entering adjustments that you want to reverse in the next period.

**automated stage** A stage that does not require human intervention; for example, a data load.

**axis** 1) A straight line that passes through a graphic used for measurement and categorization; 2) A report aspect used to arrange and relate multidimensional data, such as filters, pages, rows, and columns. For example, for a data query in Simple Basic, an axis can define columns for values for Qtr1, Qtr2, Qtr3, and Qtr4. Row data would be retrieved with totals in the following hierarchy: Market, Product.

**backup** A duplicate copy of an application instance.

**balance account** An account type that stores unsigned values that relate to a particular time.

**balanced journal** A journal in which the total debits equal the total credits.

**bang character (!)** A character that terminates a series of report commands and requests information from the database. A report script must be terminated with a bang character; several bang characters can be used within a report script.

**base currency** The currency in which daily business transactions are performed.

**base dimension** A standard dimension that is associated with one or more attribute dimensions. For example, assuming products have flavors, the Product dimension is the base dimension for the Flavors attribute dimension.

**base entity** An entity at the bottom of the organization structure that does not own other entities.

**batch calculation** Any calculation on a database that is done in batch; for example, a calculation script or a full database calculation. Dynamic calculations are not considered to be batch calculations.

**batch file** An operating system file that can call multiple ESSCMD scripts and run multiple sessions of ESSCMD. On Windows-based systems, batch files have BAT file extensions. On UNIX, batch files are written as a shell script.

**Batch Loader** An FDM component that enables the processing of multiple files.

**batch POV** A collection of all dimensions on the user POV of every report and book in the batch. While scheduling the batch, you can set the members selected on the batch POV.

**batch processing mode** A method of using ESSCMD to write a batch or script file that can be used to automate routine server maintenance and diagnostic tasks. ESSCMD script files can execute multiple commands and can be run from the operating system command line or from within operating system batch files. Batch files can be used to call multiple ESSCMD scripts or run multiple instances of ESSCMD.

**block** The primary storage unit which is a multidimensional array representing the cells of all dense dimensions.

**block storage database** The Essbase database storage model categorizing and storing data based on the sparsity of data values defined in sparse dimensions. Data values are stored in blocks, which exist only for sparse dimension members for which there are values.
**Blocked Account** An account that you do not want calculated in the consolidated file because you want to enter it manually.

**book** 1) In Financial Reporting, a container that holds a group of similar documents. Books may specify dimension sections or dimension changes; 2) In Data Relationship Management, a collection of exports that can be run together as a group. Export results can be combined together or output separately.

**book POV** The dimension members for which a book is run.

**bookmark** A link to a reporting document or a Web site, displayed on a personal page of a user. The types of bookmarks are My Bookmarks and image bookmarks.

**bounding rectangle** The required perimeter that encapsulates the Interactive Reporting document content when embedding Interactive Reporting document sections in a personal page, specified in pixels for height and width or row per page.

**broadcast message** A simple text message sent by an administrator to a user who is logged on to a Planning application. The message details information such as system availability, notification of application refresh, or application backups.

**build method** A method used to modify database outlines. Choice of a build method is based on the format of data in data source files.

**business process** A set of activities that collectively accomplish a business objective.

**business rules** Logical expressions or formulas that are created within an application to produce a desired set of resulting values.

**cache** A buffer in memory that holds data temporarily.

**calc script** A set of commands that define how a database is consolidated or aggregated. A calculation script may also contain commands that specify allocation and other calculation rules separate from the consolidation process.

**Calculated Accounts** Accounts with formulas that you cannot alter. These formulas are fixed to maintain the accounting integrity of the model that you are building. For example, the formula for Net Income, a Calculated Account, is modeled into Strategic Finance and cannot be changed in historical or forecast periods.

**calculated member in MaxL DML** A member designed for analytical purposes and defined in the optional WITH section of a MaxL DML query.

**Calculation Manager** A module of Enterprise Performance Management Architecture (EPMA) that Planning and Financial Management users can use to design, validate, and administrate business rules in a graphical environment.

**calculation status** A consolidation status that indicates that some values or formula calculations have changed. You must reconsolidate to get the correct values for the affected entity.

**calendar** User-defined time periods and their relationship to each other. Q1, Q2, Q3, and Q4 comprise a calendar or fiscal year.

**cascade** The process of creating multiple reports for a subset of member values.

**Catalog pane** An area that displays a list of elements available to the active section. If Query is the active section, a list of database tables is displayed. If Pivot is the active section, a list of results columns is displayed. If Dashboard is the active section, a list of embeddable sections, graphic tools, and control tools are displayed.

**categories** Groupings by which data is organized. For example, Month.

**cause and effect map** A map that depicts how the elements that form your corporate strategy relate and how they work together to meet your organization’s strategic goals. A Cause and Effect map tab is automatically created for each Strategy map.

**CDF** See custom-defined function.

**CDM** See custom-defined macro.

**cell** 1) The data value at the intersection of dimensions in a multidimensional database; the intersection of a row and a column in a worksheet; 2) A logical group of nodes belonging to one administrative domain.

**cell note** A text annotation for a cell in an Essbase database. Cell notes are a type of LRO.

**CHANGED status** Consolidation status that indicates data for an entity has changed.

**chart template** A template that defines the metrics to display in Workspace charts.
child A member with a parent above it in the database outline.

choice list A list of members that a report designer can specify for each dimension when defining the report’s point of view. A user who wants to change the point of view for a dimension that uses a choice list can select only the members specified in that defined member list or those members that meet the criteria defined in the function for the dynamic list.

clean block A data block in which the database is fully calculated, if a calculation script calculates all dimensions at once, or if the SET CLEARUPDATESTATUS command is used in a calculation script.

cluster An array of servers or databases that behave as a single resource which share task loads and provide failover support; eliminates one server or database as a single point of failure in a system.

cluster interconnect A private link used by a hardware cluster for heartbeat information, to detect node failure.

cluster services Software that manages cluster member operations as a system. With cluster services, you can define a set of resources and services to monitor through a heartbeat mechanism between cluster members and to move these resources and services to a different cluster member as efficiently and transparently as possible.

clustered bar charts Charts in which categories are viewed side-by-side; used only with vertical bar charts.

code page A mapping of bit combinations to a set of text characters. Different code pages support different sets of characters. Each computer contains a code page setting for the character set requirements of the language of the computer user. In the context of this document, code pages map characters to bit combinations for non-Unicode encodings. See also encoding.

column In Data Relationship Management, a field of data associated with an import source or the results of a query, compare, validation, or export.

committed access An Essbase Kernel Isolation Level setting that affects how Essbase handles transactions. Under committed access, concurrent transactions hold long-term write locks and yield predictable results.

computed item A virtual column (as opposed to a column that is physically stored in the database or cube) that can be calculated by the database during a query, or by Interactive Reporting Studio in the Results section. Computed items are calculations of data based on functions, data items, and operators provided in the dialog and can be included in reports or reused to calculate other data.

connection file See Interactive Reporting connection file (.oce)

consolidated file (Parent) A file into which all of the business unit files are consolidated; contains the definition of the consolidation.

consolidation The process of aggregating data from dependent entities to parent entities. For example, if the dimension Year consists of the members Qtr1, Qtr2, Qtr3, and Qtr4, its consolidation is Year.

consolidation file (*.cns) A graphical interface that enables you to add, delete, or move Strategic Finance files in the consolidation process using either a Chart or Tree view. It also enables you to define and modify the consolidation.

consolidation rule The rule that is executed during the consolidation of the node of the hierarchy. This rule can contain customer-specific formulas appropriate for the correct consolidation of parent balances. Elimination processing can be controlled within these rules.

content Information stored in the repository for any type of file.

content browser A component that enables users to browse and select content to be placed on a Workspace Page.

context variable A variable that is defined for a particular task flow to identify the context of the taskflow instance.

contribution The value added to a parent from a child entity. Each child has a contribution to its parent.

controls groups Groupings used in FDM to maintain and organize certification and assessment information, especially helpful for meeting Sarbanes-Oxley requirements.

conversion rate See exchange rate.

cookie A segment of data placed on your computer by a Web site.
correlated subqueries  Subqueries that are evaluated once for every row in the parent query; created by joining a topic item in the subquery with a topic in the parent query.

critical business area (CBA)  An individual or a group organized into a division, region, plant, cost center, profit center, project team, or process; also called accountability team or business area.

critical success factor (CSF)  A capability that must be established and sustained to achieve a strategic objective; owned by a strategic objective or a critical process and is a parent to one or more actions.

crosstab reporting  Reporting that categorizes and summarizes data in table format. The table cells contain summaries of the data that fit within the intersecting categories. For example, a crosstab report of product sales information could show size attributes, such as Small and Large, as column headings and color attributes, such as Blue and Yellow, as row headings. The cell in the table where Large and Blue intersect could contain the total sales of all Blue products that are sized Large.

cube  A block of data that contains three or more dimensions. An Essbase database is a cube.

cube deployment  In Essbase Studio, the process of setting load options for a model to build an outline and load data into an Essbase application and database.

cube schema  In Essbase Studio, the metadata elements, such as measures and hierarchies, representing the logical model of a cube.

currency conversion  A process that converts currency values in a database from one currency into another. For example, to convert one U. S. dollar into the European euro, the exchange rate (for example, 0.923702) is multiplied by the dollar (1* 0.923702). After conversion, the European euro amount is .92.

Currency Overrides  A feature allowing the selected input method for any input period to be overridden to enable input of that period’s value as Default Currency/Items. To override the input method, enter a pound sign (#) before or after the number.

currency partition  A dimension type that separates local currency members from a base currency, as defined in an application. Identifies currency types, such as Actual, Budget, and Forecast.

custom calendar  Any calendar created by an administrator.

custom dimension  A dimension created and defined by users. Channel, product, department, project, or region could be custom dimensions.

custom property  A property of a dimension or dimension member that is created by a user.

custom report  A complex report from the Design Report module, composed of any combination of components.

custom-defined function (CDF)  Essbase calculation functions developed in Java and added to the standard Essbase calculation scripting language using MaxL. See also custom-defined macro.

custom-defined macro (CDM)  Essbase macros written with Essbase calculator functions and special macro functions. Custom-defined macros use an internal Essbase macro language that enables the combination of calculation functions and they operate on multiple input parameters. See also custom-defined function.

cycle through  Perform multiple passes through a database while calculating it.

dashboard  A collection of metrics and indicators that provide an interactive summary of your business. Dashboards enable you to build and deploy analytic applications.

data cache  A buffer in memory that holds uncompressed data blocks.

data cell  See cell.

data file cache  A buffer in memory that holds compressed data (PAG) files.

data form  A grid display that enables users to enter data into the database from an interface such as a Web browser, and to view and analyze data or related text. Certain dimension member values are fixed, giving users a specific view into the data.

data function  Function that computes aggregate values, including averages, maximums, counts, and other statistics that summarize groupings of data.

data load location  In FDM, a reporting unit responsible for submitting source data into the target system. Typically, one FDM data load location exists for each source file loaded to the target system.
**data load rules**  A set of criteria that determines how to load data from a text-based file, a spreadsheet, or a relational data set into a database.

**data lock**  A feature that prevents changes to data according to specified criteria, such as a period or scenario.

**data mining**  The process of searching through an Essbase database for hidden relationships and patterns in a large amount of data.

**data model**  A representation of a subset of database tables.

**data value**  See cell.

**database connection**  A file that stores definitions and properties used to connect to data sources and enables database references to be portable and widely used.

**date measure**  In Essbase, a member tagged as Date in the dimension where measures are represented. The cell values are displayed as formatted dates. Dates as measures can be useful for analysis types that are difficult to represent using the Time dimension. For example, an application may need to track acquisition dates for a series of capital assets, but the acquisition dates span too large a period to allow for feasible Time dimension modeling. See also typed measure.

**Default Currency Units**  The unit scale of data. For example, if you select to define your analysis in thousands and enter 10, this unit is interpreted as 10,000.

**dense dimension**  In block storage databases, a dimension likely to contain data for every combination of dimension members. For example, time dimensions are often dense because they can contain all combinations of all members. Contrast with sparse dimension.

**dependent entity**  An entity that is owned by another entity in the organization.

**derived text measure**  In Essbase Studio, a text measure whose values are governed by a predefined rule expressed as a range. For example, a derived text measure, called “Sales Performance Index,” based on a measure Sales, could consist of the values “High,” “Medium,” and “Low.” This derived text measure is defined to display “High,” “Medium,” and “Low” depending on the range in which the corresponding sales values fall. See also text measure.

**descendant**  Any member below a parent in the database outline. In a dimension that includes years, quarters, and months, the members Qtr2 and April are descendants of the member Year.

**Design Report**  An interface in Web Analysis Studio for designing custom reports, from a library of components.

**destination**  1) In Business Rules, a block of the database where calculated values are stored; 2) In Profitability and Cost Management, the association of a source and destination in the allocation model that controls the direction of allocated costs or revenue flow.

**destination currency**  The currency to which balances are converted. You enter exchange rates and convert from the source currency to the destination currency. For example, when you convert from EUR to USD, the destination currency is USD.

**detail chart**  A chart that provides the detailed information that you see in a Summary chart. Detail charts appear in the Investigate Section in columns below the Summary charts. If the Summary chart shows a Pie chart, then the Detail charts below represent each piece of the pie.

**dimension**  A data category used to organize business data for the retrieval and preservation of values. Dimensions usually contain hierarchies of related members grouped within them. For example, a Year dimension often includes members for each time period, such as quarters and months.

**dimension build**  The process of adding dimensions and members to an Essbase outline.

**dimension build rules**  Specifications, similar to data load rules, that Essbase uses to modify an outline. The modification is based on data in an external data source file.

**dimension tab**  In the Pivot section, the tab that enables you to pivot data between rows and columns.

**dimension table**  1) A table that includes numerous attributes about a specific business process; 2) In Essbase Integration Services, a container in the OLAP model for one or more relational tables that define a potential dimension in Essbase.

**dimension type**  A dimension property that enables the use of predefined functionality. Dimensions tagged as time have a predefined calendar functionality.
**dimensionality** In MaxL DML, the represented dimensions (and the order in which they are represented) in a set. For example, the following set consists of two tuples of the same dimensionality, because they both reflect the dimensions (Region, Year): { (West, Feb), (East, Mar) }

**direct rate** A currency rate that you enter in the exchange-rate table. The direct rate is used for currency conversion. For example, to convert balances from JPY to USD, in the exchange-rate table, enter a rate for the period/scenario where the source currency is JPY and the destination currency is USD.

**dirty block** A data block containing cells that have been changed since the last calculation. Upper-level blocks are marked as dirty if their child blocks are dirty (that is, if they have been updated).

**Disaster Recovery** The ability to safeguard against natural or unplanned outages at a production site by having a recovery strategy for applications and data to a geographically separate standby site.

**display type** One of three Web Analysis formats saved to the repository: spreadsheet, chart, and pinboard.

**dog-ear** The flipped page corner in the upper-right corner of the chart header area.

**domain** In data mining, a variable representing a range of navigation within data.

**drill-down** Navigation through the query result set using the dimensional hierarchy. Drilling down moves the user perspective from aggregated data to detail. For example, drilling down can reveal hierarchical relationships between years and quarters or quarters and months.

**drill-through** The navigation from a value in one data source to corresponding data in another source.

**driver** In Profitability and Cost Management, an allocation method that describes the mathematical relationship between the sources that use the driver and the destinations to which those sources allocate cost or revenue. For Business Modeling, see also cost driver and activity driver.

**duplicate alias name** A name that occurs more than once in an alias table and can be associated with more than one member in a database outline. Duplicate alias names can be used with duplicate member outlines only.

**duplicate member name** Multiple occurrences of a member name in a database, with each occurrence representing a different member. For example, a database has two members named New York. One member represents New York state and the other member represents New York city.

**duplicate member outline** A database outline containing duplicate member names.

**Dynamic Calc and Store members** Members in a block storage outline that Essbase calculates only upon the first retrieval of the value. Essbase then stores the calculated value in the database. Subsequent retrievals do not require calculating.

**Dynamic Calc members** Members in a block storage outline that Essbase calculates only at retrieval time. Essbase discards calculated values after completing the retrieval request.

**dynamic calculation** In Essbase, a calculation that occurs only when you retrieve data on a member that is tagged as Dynamic Calc or Dynamic Calc and Store. The member’s values are calculated at retrieval time instead of being precalculated during batch calculation.

**dynamic hierarchy** In aggregate storage database outlines only, a hierarchy in which members are calculated at retrieval time.

**dynamic member list** A system-created named member set that is based on user-defined criteria. The list is refreshed automatically whenever it is referenced in the application. As dimension members are added and deleted, the list automatically reapplies the criteria to reflect the changes.

**dynamic reference** A pointer in the rules file to header records in a data source.

**dynamic report** A report containing data that is updated when you run the report.

**Dynamic Time Series** A process that performs period-to-date reporting in block storage databases.

**dynamic view account** An account type indicating that account values are calculated dynamically from the data that is displayed.

**Eliminated Account** An account that does not appear in the consolidated file.

**elimination** The process of zeroing out (eliminating) transactions between entities within an organization.
employee  A user responsible for, or associated with, specific business objects. Employees need not work for an organization; for example, they can be consultants. Employees must be associated with user accounts, for authorization purposes.

encoding  A method for mapping bit combinations to characters for creating, storing, and displaying text. Each encoding has a name; for example, UTF-8. Within an encoding, each character maps to a specific bit combination; for example, in UTF-8, uppercase A maps to HEX41. See also code page, locale.

ending period  A period enabling you to adjust the date range in a chart. For example, an ending period of “month” produces a chart showing information through the end of the current month.

Enterprise View  An Administration Services feature that enables management of the Essbase environment from a graphical tree view. From Enterprise View, you can operate directly on Essbase artifacts.

entity  A dimension representing organizational units. Examples: divisions, subsidiaries, plants, regions, products, or other financial reporting units.

EPM Oracle home  A subdirectory of Middleware home containing the files required by EPM System products. The EPM Oracle home location is specified during installation with EPM System Installer.

EPM Oracle instance  A directory containing active, dynamic components of EPM System products (components that can change during run-time). You define the EPM Oracle instance directory location during configuration with EPM System Configurator.

Equity Beta  The riskiness of a stock, measured by the variance between its return and the market return, indicated by an index called “beta.” For example, if a stock’s return normally moves up or down 1.2% when the market moves up or down 1%, the stock has a beta of 1.2.

esbase.cfg  An optional configuration file for Essbase. Administrators may edit this file to customize Essbase Server functionality. Some configuration settings may also be used with Essbase clients to override Essbase Server settings.

EssCell  A function entered into a cell in Essbase Spreadsheet Add-in to retrieve a value representing an intersection of specific Essbase database members.

ESSCMD  A command-line interface for performing Essbase operations interactively or through batch script files.

ESSLANG  The Essbase environment variable that defines the encoding used to interpret text characters. See also encoding.

ESSMSH  See MaxL Shell.

exceptions  Values that satisfy predefined conditions. You can define formatting indicators or notify subscribing users when exceptions are generated.

exchange rate type  An identifier for an exchange rate. Different rate types are used because there may be multiple rates for a period and year. Users traditionally define rates at period end for the average rate of the period and for the end of the period. Additional rate types are historical rates, budget rates, forecast rates, and so on. A rate type applies to a specific time.

expense account  An account that stores periodic and year-to-date values that decrease net worth if they are positive.

Extensible Markup Language (XML)  A language comprising a set of tags used to assign attributes to data that can be interpreted between applications according to a schema.

external authentication  Logging on to Oracle EPM System products with user information stored outside the application. The user account is maintained by the EPM System, but password administration and user authentication are performed by an external service, using a corporate directory such as Oracle Internet Directory (OID) or Microsoft Active Directory (MSAD).

externally triggered events  Non-time-based events for scheduling job runs.

Extract, Transform, and Load (ETL)  Data-source-specific programs for extracting data and migrating it to applications.

extraction command  An Essbase reporting command that handles the selection, orientation, grouping, and ordering of raw data extracted from a database; begins with the less-than (<?) character.
**Fact Table** The central table in a star join schema, characterized by a foreign key and elements drawn from a dimension table. This table typically contains numeric data that can be related to all other tables in the schema.

**Failover** The ability to switch automatically to a redundant standby database, server, or network if the primary database, server, or network fails or is shut down. A system that is clustered for failover provides high availability and fault tolerance through server redundancy and fault-tolerant hardware, such as shared disks.

**Favorites Gadget** A gadget that contains links to Reporting and Analysis documents and URLs. See also gadget.

**File Delimiter** A character, such as a comma or tab, that separates fields in a data source.

**Filter** A constraint on data sets that restricts values to specific criteria; for example, to exclude certain tables, metadata, or values, or to control access.

**Flow Account** An unsigned account that stores periodic and year-to-date values.

**Footer** Text or images at the bottom of report pages, containing dynamic functions or static text such as page numbers, dates, logos, titles or file names, and author names.

**Format String** 1) In Essbase, a method for transforming the way cell values are displayed; 2) In Data Relationship Management, a parameter of a Format or Formatted Date derived property that indicates the format in which a property value should be returned.

**Formula** In Data Relationship Management, business logic used by a derived property to dynamically calculate a property value.

**Frame** An area on the desktop. Two main areas: the navigation and workspace frames.

**Free-Form Grid** An object for presenting, entering, and integrating data from different sources for dynamic calculations.

**Free-Form Reporting** Creating reports by entering dimension members or report script commands in worksheets.

**Function** In Data Relationship Management, a syntactic element of a derived property formula that accepts parameters and returns dynamic values.

**Gadget** A simple, specialized, lightweight application that provides easy viewing of EPM content and enables access to core Reporting and Analysis functionality.

**Genealogy Data** Additional data that is optionally generated after allocation calculations. This data enables reporting on all cost or revenue flows from start to finish through all allocation steps.

**Generation** A layer in a hierarchical tree structure that defines member relationships in a database. Generations are ordered incrementally from the top member of the dimension (generation 1) down to the child members. Use the unique generation name to identify a layer in the hierarchical tree structure.

**Generic Jobs** Non-SQR Production Reporting or non-Interactive Reporting jobs.

**Global Report Command** A command in a running report script that is effective until it is replaced by another global command or the file ends.

**Grid POV** A means for specifying dimension members on a grid without placing dimensions in rows, columns, or page intersections. A report designer can set POV values at the grid level, preventing user POVs from affecting the grid. If a dimension has one grid value, you put the dimension into the grid POV instead of the row, column, or page.

**Group** A container for assigning similar access permissions to multiple users.

**GUI** Graphical user interface

**Hardware Cluster** A collection of computers that provides a single view of network services (for example, an IP address) or application services (such as databases and Web servers) to clients of these services. Each node in a hardware cluster is a standalone server that runs its own processes. These processes can communicate with one another to form what looks like a single system that cooperatively provides applications, system resources, and data to users.

**High Availability** A system attribute that enables an application to continue to provide services in the presence of failures. This is achieved through removal of single points of failure, with fault-tolerant hardware, as well as server clusters; if one server fails, processing requests are routed to another server.
**Historical Average**  An average for an account over a number of historical periods.

**holding company**  An entity that is part of a legal entity group, with direct or indirect investments in all entities in the group.

**horizontal application server cluster**  A cluster with application server instances on different machines.

**host**  A server on which applications and services are installed.

**host properties**  Properties pertaining to a host, or if the host has multiple Oracle EPM homes, to an Oracle EPM home.

**Hybrid Analysis**  An analysis mapping low-level data stored in a relational database to summary-level data stored in Essbase, combining the mass scalability of relational systems with multidimensional data.

**hyperlink**  A link to a file, a Web page, or an intranet HTML page.

**Hypertext Markup Language (HTML)**  A programming language specifying how Web browsers display data.

**identity**  A unique identification for a user or group in external authentication.

**image bookmarks**  Graphic links to Web pages or repository items.

**IMPACTED status**  A status that indicates changes in child entities consolidating into parent entities.

**implied share**  A member with one or more children but only one that is consolidated, so the parent and child share a value.

**import format**  In FDM, the definition of the structure of the source file that enables the loading of a source data file to an FDM data-load location.

**inactive group**  A group for which an administrator has deactivated system access.

**INACTIVE status**  A status that indicates entities deactivated from consolidation for the current period.

**inactive user**  A user whose account was deactivated by an administrator.

**income account**  An account storing periodic and year-to-date values that, if positive, increase net worth.

**index**  1) A method where Essbase uses sparse-data combinations to retrieve data in block storage databases. 2) The index file.

**index cache**  A buffer containing index pages.

**index entry**  A pointer to an intersection of sparse dimensions. Index entries point to data blocks on disk and use offsets to locate cells.

**index file**  An Essbase file storing block storage data retrieval information, residing on disk, and containing index pages.

**index page**  A subdivision in an index file. An index page contains pointers to data blocks.

**input data**  Data loaded from a source rather than calculated.

**installation assemblies**  Product installation files that plug in to EPM System Installer.

**integration**  A process that is run to move data between Oracle’s Hyperion applications using Shared Services. Data integration definitions specify the data moving between a source application and a destination application, and they enable the data movements to be grouped, ordered, and scheduled.

**intelligent calculation**  A calculation method tracking updated data blocks since the last calculation.

**Interactive Reporting connection file (.oce)**  Files encapsulating database connection information, including the database API (ODBC, SQL*Net, and so on), database software, the database server network address, and database user name. Administrators create and publish Interactive Reporting connection (.oce) files.

**intercompany elimination**  See elimination.

**intercompany matching**  The process of comparing balances for pairs of intercompany accounts within an application. Intercompany receivables are compared to intercompany payables for matches. Matching accounts are used to eliminate intercompany transactions from an organization’s consolidated totals.

**intercompany matching report**  A report that compares intercompany account balances and indicates whether the accounts are in balance.
interdimensional irrelevance  A situation in which a dimension does not intersect with other dimensions. Because the data in the dimension cannot be accessed from the nonintersecting dimensions, the nonintersecting dimensions are not relevant to that dimension.

intersection  A unit of data representing the intersection of dimensions in a multidimensional database; also, a worksheet cell.

intrastage assignment  An assignment in the financial flow to an object within the same stage.

introspection  A deep inspection of a data source to discover hierarchies based on the inherent relationships in the database. Contrast with scraping.

Investigation  See drill-through.

isolation level  An Essbase Kernel setting that determines the lock and commit behavior of database operations. Choices are: committed access and uncommitted access.

iteration  A pass of the budget or planning cycle in which the same version of data is revised and promoted.

Java application server cluster  An active-active application server cluster of Java Virtual Machines (JVMs).

Java Database Connectivity (JDBC)  A client-server communication protocol used by Java-based clients and relational databases. The JDBC interface provides a call-level API for SQL-based database access.

job output  Files or reports produced from running a job.

jobs  Documents with special properties that can be launched to generate output. A job can contain Interactive Reporting, SQR Production Reporting, or generic documents.

join  A link between two relational database tables or topics based on common content in a column or row. A join typically occurs between identical or similar items within different tables or topics. For example, a record in the Customer table is joined to a record in the Orders table because the Customer ID value is the same in each table.

journal entry (JE)  A set of debit-credit adjustments to account balances for a scenario and period.

JSP  Java Server Page.

KeyContacts gadget  A gadget that contains a group of Smart Space Collaborator users and provides access to Smart Space Collaborator. For example, you can have a KeyContacts gadget for your marketing team and another for your development team. See also gadget.

latest  A spreadsheet keyword used to extract data values from the member defined as the latest time period.

layer 1) The horizontal location of members in a hierarchical structure, specified by generation (top down) or level (bottom up); 2) Position of objects relative to other objects. For example, in the Sample Basic database, Qtr1 and Qtr4 are in the same layer, so they are also in the same generation, but in a database with a ragged hierarchy, Qtr1 and Qtr4 might not be in same layer, though they are in the same generation.

layout area  An area on a Workspace Page where content can be placed.

legend box  A box containing labels that identify the data categories of a dimension.

level  A layer in a hierarchical tree structure that defines database member relationships. Levels are ordered from the bottom dimension member (level 0) up to the parent members.

level 0 block  A data block for combinations of sparse, level 0 members.

level 0 member  A member that has no children.

liability account  An account type that stores “point in time” balances of a company’s liabilities. Examples: accrued expenses, accounts payable, and long-term debt.

lifecycle management  The process of migrating an application, a repository, or individual artifacts across product environments.

line item detail  The lowest level of detail in an account.

lineage  The relationship between different metadata elements showing how one metadata element is derived from one or more other metadata elements, ultimately tracing the metadata element to its physical source. In Essbase Studio, a lineage viewer displays the relationships graphically. See also traceability.
link 1) A reference to a repository object. Links can reference folders, files, shortcuts, and other links; 2) In a taskflow, the point where the activity in one stage ends and another begins.

link condition A logical expression evaluated by the taskflow engine to determine the sequence of launching taskflow stages.

linked data model Documents that are linked to a master copy in a repository.

linked partition A shared partition that enables you to use a data cell to link two databases. When a user clicks a linked cell in a worksheet, Essbase opens a new sheet displaying the dimensions in the linked database. The user can then drill down those dimensions.

linked reporting object (LRO) A cell-based link to an external file such as cell notes, URLs, or files with text, audio, video, or pictures. (Only cell notes are supported for Essbase LROs in Financial Reporting.) Contrast with local report object.

load balancer Hardware or software that directs the requests to individual application servers in a cluster and is the only point of entry into the system.

load balancing Distribution of requests across a group of servers, which helps to ensure optimal end user performance.

local currency An input currency type. When an input currency type is not specified, the local currency matches the entity’s base currency.

local report object A report object that is not linked to a Financial Reporting report object in Explorer. Contrast with linked reporting object.

local results A data model’s query results. Results can be used in local joins by dragging them into the data model. Local results are displayed in the catalog when requested.

locale A computer setting that specifies a location’s language, currency and date formatting, data sort order, and the character set encoding used on the computer. Essbase uses only the encoding portion. See also encoding, ESSLANG.

locale header record A text record at the beginning of some non-Unicode-encoded text files, such as scripts, that identifies the encoding locale.

location alias A descriptor that identifies a data source. The location alias specifies a server, application, database, user name, and password. Location aliases are set by DBAs at the database level using Administration Services Console, ESSCMD, or the API.

locked A user-invoked process that prevents users and processes from modifying data.

locked data model A data model that cannot be modified by a user.

LOCKED status A consolidation status indicating that an entity contains data that cannot be modified.

Log Analyzer An Administration Services feature that enables filtering, searching, and analysis of Essbase logs.

logic group In FDM, one or more logic accounts generated after a source file is loaded into FDM. Logic accounts are calculated accounts derived from the source data.

logical Web application An aliased reference used to identify the internal host name, port, and context of a Web application. In a clustered or high-availability environment, this is the alias name that establishes a single internal reference for the distributed components. In EPM System, a nonclustered logical Web application defaults to the physical host running the Web application.

LRO See linked reporting object.

managed server An application server process running in its own Java Virtual Machine (JVM).

manual stage A stage that requires human intervention.

Map File A file that stores the definition for sending data to or retrieving data from an external database. Map files have different extensions (.mps to send data; .mpr to retrieve data).

Map Navigator A feature that displays your current position on a Strategy, Accountability, or Cause and Effect map, indicated by a red outline.

Marginal Tax Rate The rate used to calculate the after-tax cost of debt; represents the tax rate applied to the last earned income dollar (the rate from the highest tax bracket into which income falls) and includes federal, state, and local taxes. Based on current level of taxable income and tax bracket, you can predict marginal tax rate.
**Market Risk Premium** The additional rate of return paid over the risk-free rate to persuade investors to hold “riskier” investments than government securities. Calculated by subtracting the risk-free rate from the expected market return. These figures should closely model future market conditions.

**master data model** An independent data model that is referenced as a source by multiple queries. When used, “Locked Data Model” is displayed in the Query section’s Content pane; the data model is linked to the master data model displayed in the Data Model section, which an administrator may hide.

**mathematical operator** A symbol that defines how data is calculated in formulas and outlines. Can be any of the standard mathematical or Boolean operators; for example, +, -, *, /, and %.

**MaxL** The multidimensional database access language for Essbase, consisting of a data definition language (MaxL DDL) and a data manipulation language (MaxL DML). See also MaxL DDL, MaxL DML, and MaxL Shell

**MaxL DDL** The data definition language used by Essbase for batch or interactive system-administration tasks.

**MaxL DML** The data manipulation language used in Essbase for data query and extraction.

**MaxL Perl Module** A Perl module (essbase.pm) that is part of Essbase MaxL DDL. This module can be added to the Perl package to provide access to Essbase databases from Perl programs.

**MaxL Script Editor** A script-development environment in Administration Services Console. MaxL Script Editor is an alternative to using a text editor and the MaxL Shell for administering Essbase with MaxL scripts.

**MaxL Shell** An interface for passing MaxL statements to Essbase Server. The MaxL Shell executable file is located in the Essbase bin directory (UNIX: essmsh; Windows: essmsh.exe).

**MDX (multidimensional expression)** A language used for querying and calculation in multidimensional-compliant databases.

**measures** Numeric values in an OLAP database cube that are available for analysis. Measures are margin, cost of goods sold, unit sales, budget amount, and so on. See also fact table.

**member** A discrete component within a dimension. A member identifies and differentiates the organization of similar units. For example, a time dimension might include members Jan, Feb, and Qtr1.

**member list** A named system- or user-defined group that references members, functions, or member lists within a dimension.

**member load** In Essbase Integration Services, the process of adding dimensions and members (without data) to Essbase outlines.

**member selection report command** A type of Report Writer command that selects member ranges based on outline relationships, such as sibling, generation, and level.

**member-specific report command** A type of Report Writer formatting command that is executed as it is encountered in a report script. The command affects only its associated member and executes the format command before processing the member.

**merge** A data load option that clears values only from the accounts specified in the data load file and replaces them with values in the data load file.

**metadata** A set of data that defines and describes the properties and attributes of the data stored in a database or used by an application. Examples of metadata are dimension names, member names, properties, time periods, and security.

**metadata elements** Metadata derived from data sources and other metadata that is stored and cataloged for Essbase Studio use.

**metadata sampling** The process of retrieving a sample of members in a dimension in a drill-down operation.

**metadata security** Security set at the member level to restrict users from accessing certain outline members.

**metaoutline** In Essbase Integration Services, a template containing the structure and rules for creating an Essbase outline from an OLAP model.
Middleware home A directory that includes the Oracle WebLogic Server home and can also include the EPM Oracle home and other Oracle homes. A Middleware home can reside on a local file system or on a remote shared disk that is accessible through NFS.

migration audit report A report generated from the migration log that provides tracking information for an application migration.

migration definition file (.mdf) A file that contains migration parameters for an application migration, enabling batch script processing.

migration log A log file that captures all application migration actions and messages.

migration snapshot A snapshot of an application migration that is captured in the migration log.

MIME Type An attribute that describes the data format of an item, so that the system knows which application should open the object. A file’s MIME (Multipurpose Internet Mail Extension) type is determined by the file extension or HTTP header. Plug-ins tell browsers which MIME types they support and which file extensions correspond to each MIME type.

mining attribute In data mining, a class of values used as a factor in analysis of a set of data.

minireport A report component that includes layout, content, hyperlinks, and the query or queries to load the report. Each report can include one or more minireports.

minischema A graphical representation of a subset of tables from a data source that represents a data modeling context.

missing data (#MISSING) A marker indicating that data in the labeled location does not exist, contains no value, or was never entered or loaded. For example, missing data exists when an account contains data for a previous or future period but not for the current period.

model 1) In data mining, a collection of an algorithm’s findings about examined data. A model can be applied against a wider data set to generate useful information about that data; 2) A file or content string containing an application-specific representation of data. Models are the basic data managed by Shared Services, of two major types: dimensional and nondimensional application objects; 3) In Business Modeling, a network of boxes connected to represent and calculate the operational and financial flow through the area being examined.

multidimensional database A method of organizing, storing, and referencing data through three or more dimensions. An individual value is the intersection point for a set of dimensions. Contrast with relational database.

multiload An FDM feature that allows the simultaneous loading of multiple periods, categories, and locations.

My Workspace Page Customizable Workspace Pages created by users. They are marked specially so that they can be easily accessed from one single place without having to navigate the repository.

named set In MaxL DML, a set with its logic defined in the optional WITH section of a MaxL DML query. The named set can be referenced multiple times in the query.

native authentication The process of authenticating a user name and password from within the server or application.

nested column headings A report column heading format that displays data from multiple dimensions. For example, a column heading that contains Year and Scenario members is a nested column. The nested column heading shows Q1 (from the Year dimension) in the top line of the heading, qualified by Actual and Budget (from the Scenario dimension) in the bottom line of the heading.

NO DATA status A consolidation status indicating that this entity contains no data for the specified period and account.

non-dimensional model A Shared Services model type that includes application objects such as security files, member lists, calculation scripts, and Web forms.

non-unique member name See duplicate member name.

null value A value that is absent of data. Null values are not equal to zero.
numeric attribute range  A feature used to associate a base dimension member that has a discrete numeric value with an attribute that represents a value range. For example, to classify customers by age, an Age Group attribute dimension can contain members for the following age ranges: 0-20, 21-40, 41-60, and 61-80. Each Customer dimension member can be associated with an Age Group range. Data can be retrieved based on the age ranges rather than on individual age values.

ODBC  Open Database Connectivity. A database access method used from any application regardless of how the database management system (DBMS) processes the information.

OK status  A consolidation status indicating that an entity has already been consolidated, and that data has not changed below it in the organization structure.

OLAP Metadata Catalog  In Essbase Integration Services, a relational database containing metadata describing the nature, source, location, and type of data that is pulled from the relational data source.

OLAP model  In Essbase Integration Services, a logical model (star schema) that is created from tables and columns in a relational database. The OLAP model is then used to generate the structure of a multidimensional database. See also online analytical processing (OLAP).

online analytical processing (OLAP)  A multidimensional, multiuser, client-server computing environment for users who analyze consolidated enterprise data in real time. OLAP systems feature drill-down, data pivoting, complex calculations, trend analysis, and modeling.

Open Database Connectivity (ODBC)  Standardized application programming interface (API) technology that allows applications to access multiple third-party databases.

Oracle home  A directory containing the installed files required by a specific product, and residing within the directory structure of Middleware home. See also Middleware home.

organization  An entity hierarchy that defines each entity and their relationship to others in the hierarchy.

origin  The intersection of two axes.

outline  The database structure of a multidimensional database, including all dimensions, members, tags, types, consolidations, and mathematical relationships. Data is stored in the database according to the structure defined in the outline.

outline synchronization  For partitioned databases, the process of propagating outline changes from one database to another database.

page  A display of information in a grid or table often represented by the Z-axis. A page can contain data from one field, derived data from a calculation, or text.

page file  An Essbase data file.

page heading  A report heading type that lists members represented on the current page of the report. All data values on the page have the members in the page heading as a common attribute.

page member  A member that determines the page axis.

palette  A JASC-compliant file with a .PAL extension. Each palette contains 16 colors that complement each other and can be used to set the dashboard color elements.

parallel calculation  A calculation option. Essbase divides a calculation into tasks and calculates some tasks simultaneously.

parallel data load  In Essbase, the concurrent execution of data load stages by multiple process threads.

parallel export  The ability to export Essbase data to multiple files. This may be faster than exporting to a single file, and it may resolve problems caused by a single data file becoming too large for the operating system to handle.

parent adjustments  The journal entries that are posted to a child in relation to its parent.

parents  The entities that contain one or more dependent entities that report directly to them. Because parents are entities associated with at least one node, they have entity, node, and parent information associated with them.
**partition area** A subcube within a database. A partition is composed of one or more areas of cells from a portion of the database. For replicated and transparent partitions, the number of cells within an area must be the same for the data source and target to ensure that the two partitions have the same shape. If the data source area contains 18 cells, the data target area must also contain 18 cells to accommodate the number of values.

**partitioning** The process of defining areas of data that are shared or linked between data models. Partitioning can affect the performance and scalability of Essbase applications.

**pattern matching** The ability to match a value with any or all characters of an item entered as a criterion. Missing characters may be represented by wild-card values such as a question mark (?) or an asterisk (*). For example, “Find all instances of apple” returns apple, but Find all instances of apple* returns apple, applesauce, applecranberry, and so on.

**percent consolidation** The portion of a child’s values that is consolidated to its parent.

**percent control** The extent to which an entity is controlled within the context of its group.

**percent ownership** The extent to which an entity is owned by its parent.

**performance indicator** An image file used to represent measure and scorecard performance based on a range you specify; also called a status symbol. You can use the default performance indicators or create an unlimited number of your own.

**periodic value method (PVA)** A process of currency conversion that applies the periodic exchange rate values over time to derive converted results.

**permission** A level of access granted to users and groups for managing data or other users and groups.

**persistence** The continuance or longevity of effect for any Essbase operation or setting. For example, an Essbase administrator may limit the persistence of user name and password validity.

**personal pages** A personal window to repository information. You select what information to display and its layout and colors.

**personal recurring time events** Reusable time events that are accessible only to the user who created them.

**personal variable** A named selection statement of complex member selections.

**perspective** A category used to group measures on a scorecard or strategic objectives within an application. A perspective can represent a key stakeholder (such as a customer, employee, or shareholder/financial) or a key competency area (such as time, cost, or quality).

**pinboard** One of the three data object display types. Pinboards are graphics composed of backgrounds and interactive icons called pins. Pinboards require traffic lighting definitions.

**pins** Interactive icons placed on graphic reports called pinboards. Pins are dynamic. They can change images and traffic lighting color based on the underlying data values and analysis tools criteria.

**pivot** Alter the perspective of retrieved data. When Essbase first retrieves a dimension, it expands data into rows. You can then pivot or rearrange the data to obtain a different viewpoint.

**planner** A user who can input and submit data, use reports that others create, execute business rules, use task lists, enable e-mail notification for themselves, and use Smart View. Planners comprise the majority of users.

**planning unit** A data slice at the intersection of a scenario, version, and entity; the basic unit for preparing, reviewing, annotating, and approving plan data.

**plot area** The area bounded by X, Y, and Z axes; for pie charts, the rectangular area surrounding the pie.

**plug account** An account in which the system stores any out-of-balance differences between intercompany account pairs during the elimination process.

**post stage assignment** Assignments in the allocation model that are assigned to locations in a subsequent model stage.
POV (point of view)  A feature for setting data focus by selecting members that are not already assigned to row, column, or page axes. For example, selectable POVs in FDM could include location, period, category, and target category. In another example, using POV as a filter in Smart View, you could assign the Currency dimension to the POV and select the Euro member. Selecting this POV in data forms displays data in Euro values.

precalculation  Calculating the database before user retrieval.

precision  Number of decimal places displayed in numbers.

predefined drill paths  Paths used to drill to the next level of detail, as defined in the data model.

presentation  A playlist of Web Analysis documents, enabling reports to be grouped, organized, ordered, distributed, and reviewed. Includes pointers referencing reports in the repository.

preserve formulas  User-created formulas kept within a worksheet while retrieving data.

primary measure  A high-priority measure important to your company and business needs. Displayed in the Contents frame.

Process Monitor Report  A list of locations and their positions within the FDM data conversion process. You can use the process monitor report to monitor the status of the closing process. The report is time-stamped. Therefore, it can be used to determine to which locations at which time data was loaded.

product  In Shared Services, an application type, such as Planning or Performance Scorecard.

Production Reporting  See SQR Production Reporting.

project  An instance of Oracle’s Hyperion products grouped together in an implementation. For example, a Planning project may consist of a Planning application, an Essbase cube, and a Financial Reporting Server instance.

provisioning  The process of granting users and groups specific access permissions to resources.

proxy server  A server acting as an intermediary between workstation users and the Internet to ensure security.

public job parameters  Reusable named job parameters created by administrators and accessible through the access control system.

public recurring time events  Reusable time events created by administrators and accessible through the access control system.

PVA  See periodic value method.

qualified name  A member name in a qualified format that differentiates duplicate member names in a duplicate member outline. For example, [Market].[East].[State].[New York] or [Market].[East].[City].[New York].

query governor  An Essbase Integration Server parameter or Essbase Server configuration setting that controls the duration and size of queries made to data sources.

reciprocal assignment  An assignment in the financial flow that also has the source as one of its destinations.

reconfigure URL  A URL that is used to reload servlet configuration settings dynamically when users are already logged on to the Workspace.

record  In a database, a group of fields making up one complete entry. For example, a customer record may contain fields for name, address, telephone number, and sales data.

recurring template  A journal template for making identical adjustments in every period.

recurring time event  An event specifying a starting point and the frequency for running a job.

redundant data  Duplicate data blocks that Essbase retains during transactions until Essbase commits updated blocks.

regular journal  A feature for entering one-time adjustments for a period. A regular journal can be balanced, balanced by entity, or unbalanced.

Related Accounts  Accounts related to the main account and grouped under the same main account number. The account structure groups all main and related accounts under the same main account number. The main account is distinguished from related accounts by the first suffix of the account number.

relational database  A type of database that stores data in related two-dimensional tables. Contrast with multidimensional database.
**replace** A data load option that clears values from all accounts for periods specified in the data load file and loads values from the data load file. If an account is not specified in the load file, its values for the specified periods are cleared.

**replicated partition** A portion of a database, defined through Partition Manager, used to propagate an update to data mastered at one site to a copy of data stored at another site. Users can access the data as though it were part of their local database.

**Report Extractor** An Essbase component that retrieves report data from the Essbase database when report scripts are run.

**report object** In report designs, a basic element with properties defining behavior or appearance, such as text boxes, grids, images, and charts.

**report script** A text file containing Essbase Report Writer commands that generate one or more production reports.

**Report Viewer** An Essbase component that displays complete reports after report scripts are run.

**reporting currency** The currency used to prepare financial statements, and converted from local currencies to reporting currencies.

**repository** Storage location for metadata, formatting, and annotation information for views and queries.

**resources** Objects or services managed by the system, such as roles, users, groups, files, and jobs.

**restore** An operation to reload data and structural information after a database has been damaged or destroyed, typically performed after shutting down and restarting the database.

**restructure** An operation to regenerate or rebuild the database index and, in some cases, data files.

**result frequency** The algorithm used to create a set of dates to collect and display results.

**review level** A Process Management review status indicator representing the process unit level, such as Not Started, First Pass, Submitted, Approved, and Published.

**Risk Free Rate** The rate of return expected from “safer” investments such as long-term U.S. government securities.

**role** The means by which access permissions are granted to users and groups for resources.

**roll-up** See consolidation.

**root member** The highest member in a dimension branch.

**runtime prompt** A variable that users enter or select before a business rule is run.

**sampling** The process of selecting a representative portion of an entity to determine the entity's characteristics. See also metadata sampling.

**saved assumptions** User-defined Planning assumptions that drive key business calculations (for example, the cost per square foot of office floor space).

**scaling** Scaling determines the display of values in whole numbers, tens, hundreds, thousands, millions, and so on.

**scenario** A dimension for classifying data; for example, Actuals, Budget, Forecast1, or Forecast2.

**schema** In relational databases, a logical model that represents the data and the relationships between the data.

**scope** The area of data encompassed by any Essbase operation or setting; for example, the area of data affected by a security setting. Most commonly, scope refers to three levels of granularity, where higher levels encompass lower levels. The levels, from highest to lowest: the entire system (Essbase Server), applications on Essbase Server, or databases within Essbase Server applications. See also persistence.

**score** The level at which targets are achieved, usually expressed as a percentage of the target.

**scorecard** A business object that represents the progress of an employee, strategy element, or accountability element toward goals. Scorecards ascertain this progress based on data collected for each measure and child scorecard added to the scorecard.

**scraping** An inspection of a data source to derive the most basic metadata elements from it. Contrast with introspection.

**secondary measure** A low-priority measure, less important than primary measures. Secondary measures do not have Performance reports but can be used on scorecards and to create dimension measure templates.

**security agent** A Web access management provider (for example, Oracle Access Manager, Oracle Single Sign-On, or CA SiteMinder) that protects corporate Web resources.
security platform A framework enabling Oracle EPM System products to use external authentication and single sign-on.

serial calculation The default calculation setting. Divides a calculation pass into tasks and calculates one task at a time.

services Resources that enable business items to be retrieved, changed, added, or deleted. Examples: Authorization and Authentication.

servlet A piece of compiled code executable by a Web server.

shared disks See shared storage.

shared member A member that shares storage space with another member of the same name, preventing duplicate calculation of members that occur multiple times in an Essbase outline.

Shared Services Registry The part of the Shared Services repository that manages EPM System deployment information for most EPM System products, including installation directories, database settings, computer names, ports, servers, URLs, and dependent service data.

shared storage A set of disks containing data that must be available to all nodes of a failover cluster; also called shared disks.

Shared Workspace Pages Workspace Pages shared across an organization that are stored in a special System folder and can be accessed by authorized users from the Shared Workspace Pages Navigate menu.

sibling A child member at the same generation as another child member and having the same immediate parent. For example, the members Florida and New York are children of East and each other’s siblings.

silent response files Files providing data that an installation administrator would otherwise be required to provide. Response files enable EPM System Installer or EPM System Configurator to run without user intervention or input.

single point of failure Any component in a system that, if it fails, prevents users from accessing the normal functionality.

single sign-on (SSO) The ability to log on once and then access multiple applications without being prompted again for authentication.

smart tags Keywords in Microsoft Office applications that are associated with predefined actions available from the Smart Tag menu. In Oracle EPM System products, smart tags can also be used to import Reporting and Analysis content and to access Financial Management and Essbase functions.

SmartCut A link to a repository item, in URL form.

snapshot Read-only data from a specific time.

source currency The currency from which values originate and are converted through exchange rates to the destination currency.

sparse dimension In block storage databases, a dimension unlikely to contain data for all member combinations when compared to other dimensions. Contrast with dense dimension. For example, not all customers have data for all products.

SPF files Printer-independent files created by an SQR Production Reporting server, containing a representation of the actual formatted report output, including fonts, spacing, headers, footers, and so on.

Spotlighter A tool that enables color coding based on selected conditions.

SQL spreadsheet A data object that displays the result set of a SQL query.

SQR Production Reporting A specialized programming language for data access, data manipulation, and creating SQR Production Reporting documents.

stage 1) A task description that forms one logical step within a taskflow, usually performed by an individual. A stage can be manual or automated; 2) For Profitability, logical divisions within the model that represent the steps in the allocation process within your organization.

stage action For automated stages, the invoked action that executes the stage.

staging area A database that you create to meet the needs of a specific application. A staging area is a snapshot or restructured version of one or more RDBMS.

staging table A database that you create to meet the needs of a specific application. A staging area is a snapshot or restructured version of one or more RDBMSs.
standard dimension A dimension that is not an attribute dimension.

standard journal template A journal function used to post adjustments that have common adjustment information for each period. For example, you can create a standard template that contains the common account IDs, entity IDs, or amounts, and then use the template as the basis for many regular journals.

Status bar The bar at the bottom of the screen that displays helpful information about commands, accounts, and the current status of your data file.

stored hierarchy In aggregate storage databases outlines only, a hierarchy in which the members are aggregated according to the outline structure. Stored hierarchy members have certain restrictions; for example, they cannot contain formulas.

strategic objective (SO) A long-term goal defined by measurable results. Each strategic objective is associated with one perspective in the application, has one parent, the entity, and is a parent to critical success factors or other strategic objectives.

Strategy map Represents how the organization implements high-level mission and vision statements into lower-level, constituent strategic goals and objectives.

structure view Displays a topic as a simple list of component data items.

Structured Query Language A language used to process instructions to relational databases.

Subaccount Numbering A system for numbering subaccounts using nonsequential whole numbers.

subscribe Flags an item or folder to receive automatic notification whenever the item or folder is updated.

Summary chart In the Investigates Section, a chart that rolls up detail charts shown below in the same column, plotting metrics at the summary level at the top of each chart column.

supervisor A user with full access to all applications, databases, related files, and security mechanisms for a server.

supporting detail Calculations and assumptions from which the values of cells are derived.

suppress rows A setting that excludes rows containing missing values and underscores characters from spreadsheet reports.

symmetric multiprocessing (SMP) A server architecture that enables multiprocessing and multithreading. Performance is not significantly degraded when a large number of users simultaneously connect to an single instance.

symmetric topology An Oracle Fusion Middleware Disaster Recovery configuration that is identical across tiers on the production site and standby site. In a symmetric topology, the production site and standby site have the identical number of hosts, load balancers, instances, and applications. The same ports are used for both sites. The systems are configured identically and the applications access the same data.

sync Synchronization of Shared Services and application models.

synchronized The condition that exists when the latest version of a model resides in both the application and in Shared Services. See also model.

system extract A feature that transfers data from application metadata into an ASCII file.

tabs Navigable views of accounts and reports in Strategic Finance.

target Expected results of a measure for a specified period of time (day, quarter, and so on).

task list A detailed status list of tasks for a particular user.

taskflow The automation of a business process in which tasks are passed from one taskflow participant to another according to procedural rules.

taskflow definition Business processes in the taskflow management system that consist of a network of stages and their relationships; criteria indicating the start and end of the taskflow; and information about individual stages, such as participants, associated applications, associated activities, and so on.

taskflow instance A single instance of a taskflow including its state and associated data.
**taskflow management system**  A system that defines, creates, and manages the execution of a taskflow, including definitions, user or application interactions, and application executables.

**taskflow participant**  The resource that performs the task associated with the taskflow stage instance for both manual and automated stages.

**Taxes - Initial Balances**  Strategic Finance assumes that the Initial Loss Balance, Initial Gain Balance, and Initial Balance of Taxes Paid entries have taken place in the period before the first Strategic Finance time period.


**text measure**  In Essbase, a member tagged as Text in the dimension where measures are represented. The cell values are displayed as predefined text. For example, the text measure Satisfaction Index may have the values Low, Medium, and High. See also typed measure, text list, derived text measure.

**time dimension**  The time period that the data represents, such as fiscal or calendar periods.

**time events**  Triggers for job execution.

**time scale**  A scale that displays metrics by a specific time span, such as monthly or quarterly.

**time series reporting**  A process for reporting data based on a calendar date (for example, year, quarter, month, or week).

**Timeline Viewer**  An FDM feature that enables users to view dates and times of completed process flow steps for specific locations.

**Title bar**  A bar that displays the Strategic Finance name, the file name, and the scenario name Version box.

**toast message**  A message that fades in the lower-right corner of the screen.

**token**  An encrypted identification of one valid user or group on an external authentication system.

**top and side labels**  Column and row headings on the top and sides of a Pivot report.

**top-level member**  A dimension member at the top of the tree in a dimension outline hierarchy, or the first member of the dimension in sort order if there is no hierarchical relationship among dimension members. If a hierarchical relationship exists, the top-level member name is generally the same as the dimension name.

**trace allocations**  A Profitability feature that enables you to visually follow the flow of financial data, either forwards or backwards, from a single intersection throughout the model.

**trace level**  The level of detail captured in a log file.

**traceability**  The ability to track a metadata element to its physical source. For example, in Essbase Studio, a cube schema can be traced from its hierarchies and measure hierarchies to its dimension elements, date/time elements, measures, and, ultimately, to its physical source elements. See also lineage.

**traffic lighting**  Color-coding of report cells, or pins based on a comparison of two dimension members, or on fixed limits.

**transformation**  1) A process that transforms artifacts so that they function properly in the destination environment after application migration; 2) In data mining, the modification of data (bidirectionally) flowing between the cells in the cube and the algorithm.

**translation**  See currency conversion.

**Transmission Control Protocol/Internet Protocol (TCP/IP)**  A standard set of communication protocols linking computers with different operating systems and internal architectures. TCP/IP utilities are used to exchange files, send mail, and store data to various computers that are connected to local and wide area networks.

**transparent login**  A process that logs in authenticated users without launching the login screen.

**transparent partition**  A shared partition that enables users to access and change data in a remote database as though it is part of a local database.

**triangulation**  A means of converting balances from one currency to another through a third common currency. For example, to convert balances from the Danish krone to the British pound, balances could be converted from the krone to the euro and from the euro to the pound.
triggers An Essbase feature whereby data is monitored according to user-specified criteria that, when met, cause Essbase to alert the user or system administrator.

tested user Authenticated user.

tuple MDX syntax element that references a cell as an intersection of a member from each dimension. If a dimension is omitted, its top member is implied. Examples: (Jan); (Jan, Sales); (Jan, Sales, [Cola], [Texas], [Actual]).

two-pass An Essbase property that is used to recalculate members that are dependent on the calculated values of other members. Two-pass members are calculated during a second pass through the outline.

unary operator A mathematical indicator (+, -, *, /, %) associated with an outline member. The unary operator defines how the member is calculated during a database roll-up.

Unicode-mode application An Essbase application wherein character text is encoded in UTF-8, enabling users with computers configured for different languages to share application data.

unique member name A nonshared member name that exists only once in a database outline.

unique member outline A database outline that is not enabled for duplicate member names.

upgrade The process of deploying a new software release and moving applications, data, and provisioning information from an earlier deployment to the new deployment.

upper-level block A type of data block wherein at least one of the sparse members is a parent-level member.

user directory A centralized location for user and group information, also known as a repository or provider. Popular user directories include Oracle Internet Directory (OID), Microsoft Active Directory (MSAD), and Sun Java System Directory Server.

user variable A variable that dynamically renders data forms based on a user's member selection, displaying only the specified entity. For example, a user variable named Department displays specific departments and employees.

user-defined attribute (UDA) An attribute, associated with members of an outline to describe a characteristic of the members, that can be used to return lists of members that have the specified associated UDA.

user-defined member list A named, static set of members within a dimension defined by the user.

validation The process of checking a business rule, report script, or partition definition against the outline to ensure that the object being checked is valid.

validation rules Rules used in FDM to enforce data integrity. For example, in FDM, validation rules ensure that certain conditions are met after data is loaded from FDM to the target application.

value dimension A dimension that is used to define input value, translated value, and consolidation detail.

variance The difference between two values (for example, between planned and actual values).

version A possible outcome used within the context of a scenario of data. For example, Budget- Best Case and Budget- Worst Case where Budget is scenario and Best Case and Worst Case are versions.

vertical application server cluster A cluster with multiple application server instances on the same machine.

view A year-to-date or periodic display of data.

visual cue A formatted style, such as a font or a color, that highlights specific data value types. Data values may be dimension members; parent, child, or shared members; dynamic calculations; members containing a formula; read-only data cells; read-and-write data cells; or linked objects.

WebLogic Server home A subdirectory of Middleware home containing installed files required by a WebLogic Server instance. WebLogic Server home is a peer of Oracle homes.

weight A value assigned to an item on a scorecard that indicates the relative importance of that item in the calculation of the overall scorecard score. The weighting of all items on a scorecard accumulates to 100%. For example, to recognize the importance of developing new features for a product, the measure for New Features Coded on a developer's scorecard would be assigned a higher weighting than a measure for Number of Minor Defect Fixes.
**wild card**  Character that represents any single character (?) or group of characters (*) in a search string.

**WITH section**  In MaxL DML, an optional section of the query used for creating reusable logic to define sets or members. Sets or custom members can be defined once in the WITH section and then referenced multiple times during a query.

**workbook**  An entire spreadsheet file with many worksheets.

**workflow**  The steps required to process data from start to finish in FDM. The workflow consists of Import (loading data from the GL file), Validate (ensures that all members are mapped to a valid account), Export (loads the mapped members to the target application), and Check (verifies accuracy of data by processing data with user-defined validation rules).

**Workspace Page**  A page created with content from multiple sources including documents, URL, and other content types. Enables a user to aggregate content from Oracle and non-Oracle sources.

**write-back**  The ability for a retrieval client, such as a spreadsheet, to update a database value.

**ws.conf**  A configuration file for Windows platforms.

**wsconf_platform**  A configuration file for UNIX platforms.

**XML**  See Extensible Markup Language.

**XOLAP**  An Essbase multidimensional database that stores only the outline metadata and retrieves all data from a relational database at query time. XOLAP supports aggregate storage databases and applications that contain duplicate member names.

**Y axis scale**  A range of values on Y axis of charts displayed in Investigate Section. For example, use a unique Y axis scale for each chart, the same Y axis scale for all Detail charts, or the same Y axis scale for all charts in the column. Often, using a common Y axis improves your ability to compare charts at a glance.

**Zero Administration**  A software tool that identifies version number of the most up-to-date plug-in on the server.

**ZoomChart**  A tool for viewing detailed information by enlarging a chart. A ZoomChart enables you to see detailed numeric information on the metric that is displayed in the chart.