



SAS® Financial Management

5.6: User's Guide

5.62

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SAS® Financial Management 5.6: User's Guide

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Using This Book

Audience

This book is intended for users who manage forms and use the SAS Financial Management Add-In for Microsoft Excel to create a template and add data.

If you are an administrator or a power user, also see the *SAS Financial Management: Process Administrator's Guide*.

What's New

What's New in SAS Financial Management

What's New in SAS Financial Management 5.62 (on SAS 9.4M8)

Reports in SAS Financial Management

SAS Financial Management reports can be viewed and run only through the SAS Stored Process web application. The ETL Job Status report has been removed. The reference to the report in SAS Stored Process web application will be removed in future release.

Toolbar Options in SAS Financial Management

A few options are not visible on the toolbar. To view all the available options, navigate to the workspace that you want and click the view menu icon on the top right.

Post-deployment Tasks in SAS Financial Management

SAS administrators must perform a few steps after the deployment of the solution is complete on the machine. For more information, see [“Post-deployment Tasks” in SAS Financial Management: Installation and Configuration Guide](#).

Enable Single Sign-On in SAS Financial Management

SAS administrators must perform a few steps to enable the single sign-on authentication. For more information, see [“Post-installation: Enable Single Sign-On” in SAS Financial Management: Installation and Configuration Guide](#).

Notifications in SAS Financial Management

Users will not see any notifications. Users can receive emails. For more information, see [“Receiving an Alert Notification” on page 10](#).

Publish Form Sets in SAS Financial Management

SAS administrators should perform certain steps to publish the form sets without an exception. For more information [“Publish” in SAS Financial Management: Process Administrator's Guide](#).

What's New in SAS Financial Management 5.61

Support for Microsoft Office 2019 in SAS Financial Management

SAS Financial Management 5.61 now supports Microsoft Office 2019. You can use Microsoft Excel 2019 for SAS Financial Management Add-In.

What's New in SAS Financial Management 5.6

Some Roles Are Removed

The Planning Data Entry User, Report Consumer, and Report Provider roles are no longer available in SAS Financial Management 5.5 or later.

The Form and Report Management User Interface Has Been Rewritten in HTML5

Previously, many SAS applications and SAS solutions used the Adobe Flash Player to provide interactive user interfaces. Adobe announced that it intends to end support for Flash technology and will cease to update and distribute the Flash Player at the end of 2020. Browser vendors will disable Flash by default in 2019. For more information about Adobe Flash end-of-life, see [SAS Software and Its Use of the Adobe Flash Player](#).

The SAS Financial Management 5.6 web application has been rewritten in HTML5.

Data Entry in Excel Add-In

You can now edit the form data only through SAS Financial Management Add-In for Microsoft Excel. You cannot edit the forms in the Forms workspace. For more information about the Excel Add-In, see the online Help.

Administration and Processes Workspaces Are Removed

In the HTML5 user interface, the Administration and Processes workspaces are not provided. You can complete the tasks related to administration and business processes through SAS Financial Management Studio.

Help Documentation

All the help documentation for SAS Financial Management is available through the Forms Management Web interface. Click the User name in the banner of the application, and select **Help Center**.



Part 1

SAS Financial Management on the Web

Chapter 1

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1

Managing Forms

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Sign In to SAS Financial Management

- 1 Open SAS Financial Management from a URL with this format: `http://<hostname>:<port>`.
- 2 Sign in using the credentials for your operating system account.

On the Forms page, you can view and manage forms that are designed and published by a form administrator.

Use the SAS Financial Management Add-In for Microsoft Excel to edit the form details.

A *form set* is a collection of forms. A form set has a *target hierarchy* (for example, a hierarchy of organizational departments or managers, or a hierarchy of accounts). The target hierarchy helps determine the *workflow*. The workflow is the order in which forms are edited and reviewed. Each form in a form set is associated with a member of the target hierarchy.

Setting Preferences

You can set your preferences to customize your experience with SAS Financial Management. Changing these settings does not affect other users. To access these settings, click your user name on the application bar and select Settings.

- **General:** Use the options to change the theme or to reset messages.
- **Region and Language:** Use the options to specify the locale settings.
- **Accessibility:** Use the options to assist people who rely on assistive technologies.

Overview of the Forms Page

Layout

In the Forms page, you can view all the forms that you can work on.

SAS® Financial Management

Forms

Filter

Forms (238)

	...	Member ...	Member	Name	Status	Deadline
☒	↑		ACME Computers, Inc.	Defect_Testing	Unedited	Jun 13, 2019, 2:30:00 AM
☐	↑		Canada	Defect_Testing	Rejected	Jun 13, 2019, 2:30:00 AM
☐	↑		Mexico	Defect_Testing	Unedited	Jun 13, 2019, 2:30:00 AM

Form Details:

- Workflow
 - No workflow actions in c...
 - ACME Computers... Defect_Testing
- Comments
- Attachments
- History

View the Details of the Forms

The Form Details pane displays the action that you can take on the form. The options that are available depend on the type and status of the selected form.

You can also [manage comments](#), [attachments](#), and view the [history](#) of the form.

Note: The actions that you can perform in the Form Details pane are applicable for a single form. If you select multiple forms that have no common workflow action, no workflow actions are shown.

Capabilities for Working with Forms

To be assigned as a form author or reviewer, you must have the appropriate capabilities. If you cannot access a form, check with your administrator to verify that you have the capabilities that you need.

Tasks in the Forms Workspace

The Forms page displays the forms that you are responsible for and that are available for editing in Microsoft Excel or for review.

Note: Form administrators can view all available forms.

If you are a form author, you edit a form in Microsoft Excel and then send the form on to the next person in the workflow. If you are a form reviewer, you open the form, review its contents, and either approve or reject it.

Depending on your role and the form's type and status, you can perform the following tasks:

- [Edit the form in Microsoft Excel.](#)
- [View the hierarchy of the form.](#)
- [Filter the display.](#)
- Take action on a form.
- [View form history.](#)
- [Comment on a form or view existing comments.](#)
- [View a document that is attached to a form.](#)

Using the Advanced Filter

On the Forms page, enter your search criteria in the **Filter** field to search for a specific form by member name, form set name, or status.

For additional filter options, click . Use the options in the Advanced Filter pane to search for forms.

Filter

Advanced Filter

▼

Status (2 of 8)

Reset

☒ Approved

☒ Completed

☐ Edited

☐ Holding

☐ Pushed

☐ Rejected

▼

Deadline (no filter)

Reset

☐ May 11, 2019

☐ May 14, 2019

☐ May 16, 2019

Columns on the Forms Page

Column	Description
Type	Indicates the direction of the form workflow. Bottom-up ⬆ or Top-down ⬇.
Member Hierarchy	Click  to view the hierarchy level of the selected form.
Name	Contains the name of the form set that the form belongs to.
Status	Displays the form's current status, such as Edited , Rejected , Unedited , or Approved .

Column	Description
Deadline	Contains the date on which the form is due, displayed in your time zone.

TIP Some forms are locked when the deadline is reached. A locked form is removed from the display. If you have a form open for editing when the deadline is reached, the form's status changes to read-only.

Viewing the Hierarchy

- 1 In the Member Hierarchy column, click  to view the hierarchy of the selected form.
- 2 In the Member Hierarchy window, click  to expand a node.
To expand the entire display, click .
- Note:** To collapse the display of a node, click . To collapse the entire display, click .

Use the **Search** field to search for a specific member in the hierarchy.

Sorting the Display of Forms

To sort the display of forms alphabetically by a single column, click the column heading. For example, you might want to sort the available forms by the dates that they are due. To reverse the alphabetical order within a column, click the arrow next to the column name .

Viewing Form History

Information about a form is available in the **History** section of the Details pane.

The following information is included:

- the status, member, and name of selected forms.
- form authors and reviewers.
- form history, including the user and date and time that an action occurred.

Managing Comments

In the **Comments** section of the Details pane, you can add a comment to a form, view comments posted for a form, and reply to existing comments.

To add a comment:

- 1 Select a form.
- 2 In the **Form Details** pane, expand **Comments**.
- 3 In the **New topic** field, enter a new topic name.
- 4 Type the comment in the comment box.
- 5 (Optional) To attach a document or image to the comment, click . You can add multiple attachments to the comment.
- 6 Click **Post**.

Note: You can reply to comments in a form by using the **Respond** box and clicking **Post**.

Note: Click  to edit your comments or replies. To delete your comments or replies, click .

Viewing an Attachment

If your form administrator has attached any files to a form set, the files are available as attachments when you select the form.

To open an attachment:

- 1 Select a form.
- 2 In the **Form Details** pane, expand **Attachments**.
- 3 Click an attachment to open it.

Working with Forms

Receiving an Alert Notification

When there is a form available for you to work on, you receive an alert notification. On the application banner, click  to see the available notifications.

The notification is delivered in an email message or a text message.

The alert notification contains information about a form. For example, the form is available, has been rejected, or is nearing its deadline. An email notification also contains two links to the Forms workspace. One link populates the search field with the form name. The other link displays all the forms that are available to you.

Beginning with SAS Financial Management 5.62, users will not see any notifications. Users can receive e-mails. SAS administrators should perform the following steps for users to receive e-mails:

- 1 Navigate to <https://host:port/SASPreferences>.
- 2 In the left pane navigate to **General** ► **Notifications**.
- 3 In **Alert notifications**, select **Via e-mail** and click **Apply**.

Viewing Available Forms

To view available forms, select one of the following options:

- In a web browser, sign in to SAS Financial Management using the standard sign-in window for SAS web applications and select Manage Forms on the SAS Visual Analytics home page.
- From an email message, click a link to the Forms workspace.

About Forms and Form Sets

This section contains background information about form sets, workflows, form actions, and form status.

Bottom-Up Form Sets

The Bottom-Up Workflow

The route that a form takes is determined by the form set's *workflow*. In a *bottom-up* form set, data is entered at the lowest hierarchical level that is defined in the form set. When the data entry for a form is complete, the author submits the form set to the reviewer for either approval or rejection. For each form level, data is entered, submitted to the next level up for approval, and aggregated if approved. If a form is rejected, the form might be returned to the previous author for additional editing.

The workflow ends when one of the following actions occurs:

- The form set is locked. The form set might lock automatically when its deadline is reached, or a form administrator might lock the form set manually.
- A form administrator completes the form set (even if the flow of data has not reached the top of the hierarchy).

Parent and Child Forms

A parent form cannot be submitted for review until all the child forms that contribute data to it have been approved. If you are responsible for submitting a parent form and you also have sole responsibility for approving all its child forms, then you can submit the parent form as soon as all of the child forms have been submitted for review.

You can enter data into a parent form if the data-entry table includes the virtual child of the parent member to which the form is assigned. Enter the data in association with the virtual child. The parent form then aggregates its virtual child data along with the data coming from the forms that are its real children.

Bottom-Up Form Status

A bottom-up form can have the following status values:

Status	Description
Edited	The form has been edited but has not yet been submitted for review.
Submitted	The form has been submitted for review but has not yet been approved or rejected.
Unedited	The form has not yet been edited, or one of its subordinate forms has been removed from the workflow.
Approved	The form has been submitted for review and has been approved by all of the required reviewers.

Submit a Form

To submit a form:

- 1 Select a form.

2 In the Form Details pane, click **Submit**.

Form Details:

▼ Workflow

You can act on the following forms:

☐ **Mexico**
testFormset

Submit

3 Enter a comment for the reviewer and click **OK**.

Submit makes a form available for review. Submitting a form that has unapproved children also changes the status of each unapproved child from **Submitted** to **Approved**.

Approve a Form

As a reviewer, you can approve the data that a form author has entered into a form. To approve a form:

- 1** Select a form.
- 2 Approve.**
- 3** Enter a comment and click **OK**.

Reject a Form

As a reviewer, you can reject the data that a form author has entered into a form. To reject a form:

- 1** Select a form.
- 2** In the Form Details pane, click **Reject**. It changes the effect of submitting a form. Only a reviewer of a form can reject it. Rejecting a form changes its status from **Submitted** to **Edited** and makes it available for further editing.
- 3** Enter a comment and click **OK**.

Recall a Form

Only the user who submitted a form can recall it. To recall a form:

- 1 Select a form.
- 2 In the Form Details pane, click **Recall**. It reverses the effect of submitting a form. Recalling a form changes its status from **Submitted** to **Edited** and makes it available for further editing.
- 3 Enter a comment for the reviewer and click **OK**.

Top-Down Form Sets

The Top-Down Workflow

In a *top-down* form set, data-entry proceeds down the target hierarchy. If you are the author for the top-level form, you enter all the amounts that will cascade down the target hierarchy for the workflow. To do this, you manually enter data into crossings that include the virtual child of the top member in the target hierarchy. Then you allocate those amounts to one or more lower levels of the target hierarchy. When the data entry is complete, you use the **Push** action to move the form to the next level down in the form set hierarchy.

Note: When you edit a form by using the SAS Financial Management Add-In for Microsoft Excel, an Allocation wizard is available.

Pushing a form does not change the amounts that were entered by the author. It only makes the subordinate forms accessible to the next set of form authors. If you are the form author at the next level in the target hierarchy, then you allocate the data that you received and push the form down another level.

You can enter an amount that is less than or equal to the allocated amount. Any difference is returned to the parent's virtual child member. You can also spread allocated amounts to the siblings of the allocated crossing's dimension members. The total amount allocated must be the same or less than the original amount allocated. At the lowest level of the target hierarchy, you cannot allocate, but you can use the **Spread** option to redistribute those amounts.

Note: If you are the author of a form that has descendants, then you can allocate amounts to the lower levels, and use **Push to All** to bypass any further allocations.

The workflow ends when one of the following actions occurs:

- The form set is locked. The form set might lock automatically when its deadline is reached, or a form administrator might lock the form set manually.
- A form administrator completes the form set (even if the flow of data has not reached the bottom of the hierarchy).

Top-Down Form Status

A top-down form can have the following status values:

Status	Description
Edited	The form has been edited but has not yet been pushed. A form also has this status if it was pushed but then recalled.
Unedited	The form has not yet been edited.
Pushed	The form has either been pushed down a level or pushed to all of its descendants. If the form was pushed down a level, then the data that was allocated to the form's children when the form was edited has been copied into the child forms. If the form is pushed to all of its descendants, then the data that was allocated to the descendants when the form was edited is copied into the descendant forms.
Holding	The parent form has not yet been pushed. The form cannot be edited yet. Forms with Holding status are visible only to form administrators.
Completed	The form has received an allocation of data as a result of a Push to All action on a higher-level form. You can view the result of the allocation but not change it.

Push a Form

Pushing a form copies the amounts that you have allocated to the form's children into the child forms and makes those child forms available for editing.

- 1 Select a form.
- 2 In the Form Details pane, click **Push**. It changes the status of the form to **Pushed** and the status of its child forms are changed to **Unedited**.
- 3 Enter a comment for the reviewer and click **OK**.

Note: To copy the amounts that you have allocated to all the form's descendants into the descendant forms, click **Push to All**. When you push a form to all its descendants, the status of the pushed form changes to **Pushed**, and the status of all the descendant forms changes to **Completed**.

Note: In a top-down workflow, use **Recall** to reverse the effect of a previous Push or Push to All. Only the user who pushed a form can recall it. Recalling a form changes its status from **Pushed** to **Edited** and makes it available for further editing. It also removes from the forms list all the subordinate forms that received data as a result of the previous Push or Push to All.

Editing a Form

To open a form for editing or review, click . The form opens in Microsoft Excel. Within Excel, you can edit the form online or check out the form for offline editing.

Note: The **Open in Excel** option is available only if the form administrator has enabled it for the form set.



Part 2

The SAS Financial Management Add-In for Microsoft Excel

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Getting Started with the Excel Add-In

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Overview of the SAS Financial Management Add-In for Microsoft Excel

The SAS Financial Management Add-In for Microsoft Excel connects your desktop copy of Microsoft Excel to the SAS Financial Management database. Through this connection, data can flow from the SAS Financial Management database to a Microsoft Excel worksheet and from a Microsoft Excel worksheet to the SAS Financial Management database.

Accessing the Excel Add-In

The following describes how to access the Excel Add-in through typical tasks:

- **Design a financial report.** Open Microsoft Excel on your desktop and then use the **SAS Financial Management ► Log On** option.

Note: The Integrated Windows Authentication (IWA) enabled users need to manually log in to Excel Add-in.

Note: When you manually login to excel add-in, for Integrated Windows Authentication (IWA) or non-IWA user, you need to provide credentials for authentication.

Note: If you have another workbook open and are logged on to SAS Financial Management, you are not asked to supply your credentials again. If you want to connect to a different server, you must open another instance of Microsoft Excel.

- **Design a data-entry form template.** In the **Forms** workspace of SAS Financial Management Studio, select a form set and select **Show Template**. The form template opens in Microsoft Excel. No additional logon is necessary.
- **Enter data in a form.** From a web browser, log on to SAS Financial Management. From the list of available forms, select a form and click . The form opens in Microsoft Excel. No additional logon is necessary.

Viewing Financial Reports

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About Financial Reports

Overview

A financial report displays numeric values that are either stored in the SAS Financial Management database or computed from values that are stored in the SAS Financial Management database. It can contain read-only tables or cell data access (CDA) tables, or both.

Read-Only Tables

Read-only tables are multi-dimensional tables that provide interactive capabilities such as expanding and collapsing hierarchies, drill-down, filtering, pivoting, and commenting.

A dynamic report that is based on a read-only table displays current values from the SAS Financial Management database. A static report displays values that existed when the report was published.

CDA Tables

Cell data access (CDA) tables are collections of cells that use CDA functions (such as CDAGet) to retrieve values from the SAS Financial Management database for the specified model. Reports can also contain single cells that use CDA functions to access database values.

A report that is based on a CDA table displays current values from the SAS Financial Management database. In a read-only table, users have options such as dynamic member selection and property selection rules. In contrast, the references in a CDA table are static.

Viewing a Financial Report

If you open a dynamic report from a local directory, you must first log on.

If the report is dynamic and includes a read-only table, you can change your view of that table in a variety of ways, including the following:

- Select another member from a slicer dimension to display another slice of numeric values. Slicer dimensions are listed above the table itself. A worksheet with multiple tables has the option of sharing common dimensions that are placed on the slicers.
- Click an underlined row heading or column heading to expand or collapse the portion of the hierarchy that is subordinate to it.
- Select a table cell and then select an option such as **Filter Member Combination**, **Format Members**, or **Pivot** to affect your view of the table.

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Working with Data-Entry Forms

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About Data Entry

You enter data through forms that have been designed in SAS Financial Management Studio and published. The forms that you are responsible for are available to you when you log on to the SAS Financial Management web application.

Each form typically contains one or more data-entry tables. Some forms also contain supplemental schedules, read-only tables, or CDA tables.

A form set is a collection of forms that can include data entry tables and are subject to a defined workflow process. The workflow for the form set is based on the selected target hierarchy and associated members within that hierarchy. Each form is associated with a member of the target hierarchy, although only certain members of the hierarchy might be selected to have forms.

To open a form, you log on to the SAS Financial Management application and open the form in Microsoft Excel. From Microsoft Excel, you can also check out a form for offline editing, with some restrictions. For example, the form cannot include a supplemental schedule and cannot enable writing to parent members.

When you complete your edit or review, you use the Forms view to send the form to the next state in the workflow.

Note: You must have an appropriate role to enter or review data in a data-entry form.

See Also

- [“Entering Data into a Supplemental Schedule” on page 79](#)

- “Entering Data Offline” on page 31

Bottom-Up and Top-Down Form Sets

Bottom-Up Form Sets

The route that a form takes is determined by the form set’s workflow. In a bottom-up form set, data is entered at the lowest hierarchical level that is defined in the form set. When the data entry for a form is complete, the author submits the form set to the reviewer for either approval or rejection. For each form level, data is entered, submitted to the next level up for approval, and aggregated if approved. If a form is rejected, it might be returned to the previous author for additional editing.

Top-Down Form Sets

In a top-down form set, data-entry proceeds down the target hierarchy. If you are the author for the top-level form, you enter all the amounts that will cascade down the target hierarchy for the workflow. To do this, you manually enter data into crossings that include the virtual child of the top member in the target hierarchy. Then you allocate those amounts to one or more lower levels of the target hierarchy. When the data entry is complete, you use the **Push** action to make the subordinate forms accessible to the next set of form authors.

If you are the form author at the next level in the target hierarchy, you allocate the data that you received and push it down another level. Use the Allocate wizard to allocate amounts to one or more lower levels of the target hierarchy. Alternatively, you can manually enter an amount that is less than or equal to the allocated amount. Any difference is returned to the parent’s virtual child member. You can also spread allocated amounts to siblings of the allocated crossing’s dimension members. The total amount allocated must be the same or less than the original amount allocated.

At the lowest level of the target hierarchy, you cannot allocate, but you can use the **Spread** option to redistribute those amounts.

Note: If you are the author of a form that has descendants, you can allocate amounts to all lower levels and use the **Push to All** action to bypass any further allocations.

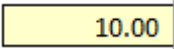
Entering Data

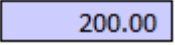
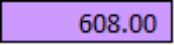
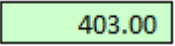
You enter data in the yellow (writable) cells. These cells belong to the organization member or members that you are responsible for. Another participant in the same workflow might see the same data-entry table with a different set of cells shown in yellow.

Note: You can use Excel’s **Copy** and **Paste** functionality to copy one or more values to a writable location in the form. If the Excel clipboard is open, you can paste the same selection from the clipboard multiple times.

For information about a crossing, right-click the cell and select **Tools ► Cell Information**.

Data cells are also color-coded. The default colors are as follows:

Color	Meaning
	A yellow cell is writable. You can enter data into it, and it can be the target of a spread, adjust values, or paste operation.
	A red cell is not readable or writable. You might not be authorized to view its contents, or its contents might be invalid. If no cells in the current rows and columns are readable, or if a data filter returns no rows, the data-entry table contains a single red cell.
	This cell is read-only. It might contain a parent member, a calculated member, or a member that is read-only because of data security, cell protection, or another option. You can view the cell’s contents but you cannot enter data into it directly. However, it can be subject to indirect changes such as allocations or consolidations. Note: In some form sets, parent cells are writable. In that case, they are displayed in yellow. See “Entering Data into Parent Cells” on page 28.

Color	Meaning
	An empty gray or white cell is not readable or writable. Its value might be hidden by a visibility rule or by a filter member combination.
	The value in this cell has been placed on hold. You can enter data into it directly, but it is protected from indirect changes.
	This cell is protected, and it is also covered by hold rules. You cannot enter data into it directly, and it is also protected from indirect changes such as allocations and consolidations.
	A green cell receives data from a supplemental schedule. (See “Entering Data into a Supplemental Schedule” on page 79.)

See Also

[“Entering Data Offline” on page 31](#)

Refreshing Values

By default, data is stored in the database as you enter it. If the data entered in a form affects additional cells, those cells are automatically updated.

If **Intelligent writeback** is enabled, writeback occurs after a short period without user input, or when a refresh action takes place. Until then, newly entered data is displayed in bold face type.

To explicitly refresh the display, click **Refresh** (to refresh the current worksheet) or **Refresh All** (to refresh all worksheets in the workbook). Some other actions, such as changing a slicer member, also trigger a refresh.

The refresh operation saves the data, formats recently entered numeric values correctly, and recomputes values that depend on the new data. For example, the data that you enter into a cell might trigger a calculation that affects other cells.

Note: **Intelligent writeback** is always disabled for top-down forms.

When you complete your data entry, close the form. If you have pending data records, you are asked if you want to save or discard them.

Unless you are entering data offline, there is no need to save the file on your local hard drive. However, if you made changes to the form (for example, if you removed an analysis member from the data-entry table, sorted the table, or made formatting changes), and you want to save those changes, select **Save Form Design** before closing the form.

Virtual Children

A virtual child (VC member) is automatically assigned to any member that has child members that roll up to it. In a data-entry table, the virtual child is a writable member whose values contribute to the parent member.

If the VC member is displayed in the table, you can use it to enter data for the parent without associating that data with a (real) child member. Virtual children are available in all hierarchical dimensions except the Time and Source dimensions.

Entering Data into Parent Cells

Note: These options apply only to forms in a bottom-up workflow.

In most cases, a parent cell is not writable, because its value is derived from the values of its subordinate cells. If writing to parent members is enabled, the cell is displayed in yellow. When you enter data into a writable parent cell, the value is distributed in one of these ways:

- **Allow data to be entered for parent members other than time**
The change in value is added to the parent's virtual child (VC) member.
- **Allocate from Parent members other than Time using predefined weights**
(automatic allocation)

A value that is entered in a parent cell is automatically distributed among eligible leaf members, based on weights that are defined in the Allocation Weights window.

■ **Allow data to be entered for Time Parent members**

Users can enter a value in a non-leaf member of the Time dimension. The distribution is defined in the table properties.

For more information, see the online Help for the table properties.

Note: These options can be enabled or disabled only by an administrator of the form template.

Data Entry with Hold Rules

Overview

Note: This feature applies only to bottom-up form sets.

If a cell in a data-entry table is being held, it is protected from indirect changes such as allocations and consolidations. For example:

- If the hold is on a leaf cell, and you write to its parent cell, the leaf cell gets no allocation from the parent.
- If the hold is on a parent cell, and you write to one of the descendant (leaf) cells, the change in value is subtracted from the other descendant cells. The parent value stays the same.

You can enter a value directly into a held cell. It is also available as a target of actions such as **Paste**, **Spread**, and **Adjust Values**.

Example: Hold on Parent Member

As a simple example, imagine a data-entry table that contains a parent member Administrative Expense and several child members. There is a hold on the parent

member, as explained by the **Cell Information** option, and the cell is displayed in light purple.

<u>Administrative Expense</u>	25.00
Office Supplies	0.00
Postage	10.00
Rent	8.00
Water	4.00
Repairs & Maintenance	2.00
Telecom	1.00

You increase the value of Water from 4 to 8. Because of the hold, the parent member (Administrative Expense) cannot change in value. To redistribute the change to Water, the values of the sibling members to Water are decreased.

<u>Administrative Expense</u>	25.00
Office Supplies	0.00
Postage	8.10
Rent	6.48
Water	8.00
Repairs & Maintenance	1.62
Telecom	0.81

The changes to the other members are proportional to their previous values. If a member has a value of 0, it does not change at all.

Note: If automatic allocation is enabled, changes are based on allocation weights when you write to a parent cell.

For more information, see [“Designing Holds for Data-Entry Forms” on page 71](#).

Reviewing Data as Part of a Bottom-Up Workflow

Reviewing the data in a form is basically the same task as viewing a financial report.

See Also

[“Viewing a Financial Report” on page 22](#)

Entering Data Offline

Typically, you enter data into a form while the SAS Financial Management Add-In for Microsoft Excel is connected to the SAS Financial Management server.

You can also enter data into a form while it is offline. To make this possible, check out the form and save it as a local Excel file. Each time you edit the form, save it in the local file. Cells whose values depend on the data that you enter are not updated as you work. Eventually, you check the form in again, reconnecting it to the server. At that point, all the data that you entered offline is saved in the SAS Financial Management database, and cells whose values depend on the data that you entered offline are automatically updated.

Note: This option is not available in certain cases: for example, forms with a supplemental schedule, forms in which writing to parent members is enabled, or forms to which ranking, sorting, or data filtering has been applied.

To check out a form for offline data-entry:

- 1 Open the form in Microsoft Excel.
- 2 In Excel, select **Check Out Form**.
The Check Out Form window appears.
- 3 In the Check Out Form window, click **Yes**.
The Save As window appears.
- 4 In the Save As window, specify the location where you want to save the file, and click **Save**.

To check in an offline form:

1 Open your local copy of the file.

2 Select **Check In Form**.

The SAS Log On window appears.

3 After you log on, the Check In Form window appears.

4 In the Check In Form window, click **Yes**.

The SAS Financial Management Add-In for Microsoft Excel connects to the SAS Financial Management server. All the data in the local copy of the form is written to the SAS Financial Management database.

Adjusting Values for a Range of Cells

Overview of the Adjust Values Window

Use the Adjust Values window to change the values in selected cells:

1 Select a range of cells.

Note: The range that you select cannot contain a read-only cell, a protected cell, or a parent cell.

2 Right-click and select **Adjust Values**.

3 In the Adjust Values window, select the type of adjustment (multiplier, fixed value, or proportional value) and enter an adjustment amount.

The **Total selected value** field displays the sum of the values in the selected cells. The **Total adjusted value** field gives a preview of the sum of those values after adjustment.

Adjust Values by Multiplier

To multiply the value in each selected cell by a specified number:

- 1 In the Adjust Values window, select **By multiplier**.
- 2 Enter the multiplier in the adjacent field. It can be positive or negative.
The value of each cell is multiplied by the value that you enter.

Adjust Values by a Fixed Amount

To change the value in each selected cell by a fixed amount:

- 1 In the Adjust Values window, select **By value**.
- 2 Enter the amount in the adjacent field.
The amount can be positive or negative. This value is added to each selected cell.

Adjust Values by a Proportional Amount

To allocate an amount to the selected cells in proportion to their original values:

- 1 In the Adjust Values window, select **By value**.
- 2 Enter the total amount to allocate in the adjacent field.
- 3 Select the **Modify each cell proportionally** check box.

Here are some examples of proportional adjustment, each example affecting two cells:

Original Values	Adjustment	Resulting Values
5 and 10	3	6 and 12
5 and 10	-3	4 and 8

Original Values	Adjustment	Resulting Values
(5) and (10)	3	(4) and (8)
(5) and (10)	-3	(6) and (12)

Note: Proportional adjustment is not possible if the selected range of cells contains both positive and negative values. In these cases, the **Modify each cell proportionally** check box is not available.

Spreading Values across Cells

Overview of the Spread Window

Use the Spread window to spread values over a selected range of cells at the same level of the hierarchy. The spread can be horizontal or vertical.

In a horizontal spread, the values are spread from left to right. The source cells are in the leftmost column of the range.

In a vertical spread, the values are spread from top to bottom. The source cells are in the topmost row of the range.

General Tab

Select a Spread Pattern

Use the drop-down list for the **Pattern** field to select a spread pattern.

The following spread patterns are always available:

Even

The value in each source cell is spread evenly over the associated set of target cells. For example, if a source cell has four associated target cells, then each target cell receives 25% of the value in the source cell.

Enter weights

The value in each source cell is spread over the associated set of target cells in a way that you specify in the **Weights** section.

4,4,5, 4,5,4, or 5,4,4

These predefined patterns are available only if you are spreading across time periods. See [“Spread across Time” on page 35](#).

Enter Weights

If you select **Enter weights** in the **Pattern** field, select one of the following in the **Weights** section:

- **Relative values.** Enter a comma-separated list of numeric weights. Each relative weight represents a percentage of the whole (100%), and target cells receive that percentage of the amount.

- **Percentages.** Enter a comma-separated list of numeric percentages in the field below the radio buttons.

This pattern is similar to the relative weight pattern. Instead of weights, you assign a percentage of the amount to target rows or columns. Percentages must total 100%.

- **Cell references** . Click the Select Cells button  to select a range of cells.

This pattern is similar to the relative weight pattern. In this case, the weights come from a range of cells that you select from a single row or column.

In each case, if the pattern that you specify is shorter than the range of target cells, the pattern is repeated.

Spread across Time

If you spread across time periods, then the following predefined spread patterns are also available:

- **4,4,5**
- **4,5,4**
- **5,4,4**

These predefined patterns are meaningful only if you are spreading over months and you are using the accounting convention that each month consists of either 4 or 5 whole weeks.

As with relative weights, if the pattern that you specify is shorter than the range of target cells, the pattern is repeated.

Change the Source or Target Selection

To modify the source or target selection, click the Select Cells button  beside the **Source** or **Target** box.

Advanced Tab

On the **Advanced** tab, you can specify the following spread options:

Exclude virtual children

If this check box is selected, then a target cell that includes a virtual child member in any of its dimensions does not participate in the spread operation.

Note: This check box is disabled if a source cell includes a virtual child member in any of its dimensions.

Specify how to handle existing values

If any target cell that is not a source cell contains a preexisting nonzero value, then you must specify how to handle existing values. To do this, select this check box and one of the radio buttons below it.

- **Ignore existing values:** Overwrite existing values in the target cells.

This option is not available in top-down forms.

- **Keep existing values:** If a target cell has an existing value, it does not participate in the spread operation. The source amount is spread over the remaining target cells.
- **Add existing values to spread result (but not to source amount):** Instead of overwriting the target cell, the spread results are added to the existing value of the target cell.

- **Add existing values to source amount (but not to spread result):** Any existing values in the target cells are added to the source amount. Then the spread results are written to the target cells (overwriting their existing values).

For example, suppose that a source value is spread evenly over three target cells, with values of 6, 0, 9. The first target cell (with a value of 6) is the source cell. The results are as follows:

Option for Existing Values	Results
Ignore existing values	2, 2, 2
Keep existing values	3, 3, 9 Preexisting nonzero values in target cells that are not source cells are left intact, and the entire source amount is spread over the other target cells.
Add existing values to spread result (but not to source amount)	2, 2, 11 Preexisting nonzero values in target cells that are not source cells are used in the final step of the computation. First, a set of target values is computed from the value in the source cell. Then, for any cell that had a preexisting nonzero value, the preexisting value is added to the value that was computed from the source value. In the example, after the spread operation the first target cell contains 2, the second target cell contains 2, and the third target cell contains $2 + 9 = 11$.
Add existing values to source amount (but not to spread result)	5, 5, 5 Preexisting nonzero values in target cells that are not source cells are used in the first step of the computation. First, all nonzero values in target cells that are not source cells are added to the source value. Then, the resulting sum is spread over the target cells. In the example, after the spread operation each of the three target cells contains $(6+9)/3 = 5$.

Validating Data in a Form

About Data Validation

Data validation ensures that the values in a data-entry table comply with certain constraints. For example, a company might want to make sure that employee bonuses do not exceed a specified percentage, or that new hiring does not exceed specified limits.

Note: Data validation applies only to bottom-up form sets.

Run Validation Rules

Data validation rules are automatically run when you submit a form. You can also run the rules manually at any point during data entry. To run data validation rules, follow these steps:

- 1 Select **Data Validation**.

The Check Validation window is displayed. This window lists errors or warnings and the number of crossings in which each error or warning occurred.

Note: Validation is run for the entire form. The rules that are applied to a data-entry table depend on the model that the table is associated with.

- 2 Select an error or warning and click **Next** or **Previous** to display, one by one, each crossing that fails the rule.

Note: Some crossings might be inaccessible. For example, an analysis member might have been removed from the form, or ranking or data filtering might have temporarily hidden some crossings.

- 3 Make any necessary changes.

- 4 To perform another check, click **Re-run validation** at the bottom of the Check Validation window.

What Is Checked

The validation process checks all navigable crossings within each rule's scope, except for crossings that a user has no control over. It does not check crossings that are not readable, and it does not check crossings that are protected from writing (by cell protection rules, data security, and so on).

Data validation does check crossings with server-side formulas. It also checks crossings that are protected in the form via the **Protect Cell** option. (In that case, the user could choose to unprotect the cell and correct the error.)

Note: A navigable crossing is one that can be displayed in the table. (It might require selecting a different slicer value or expanding a row or column.)

5

Working with Tables

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Using the Table Pop-Up Menu

If you select any cell in a Microsoft Excel spreadsheet and click the right mouse button, a pop-up menu appears. If the selected cell is in a SAS Financial Management table, then the pop-up menu includes additional options that are provided by SAS Financial Management. The set of additional options depends on the type of table that you are working with and the type of cell that you select within the table.

Every option that is on the table pop-up menu is also on one of the menus above the workbook display. The table pop-up menu gives you an alternative way to access the options that manipulate existing tables. The dictionary of menu options includes an entry for every menu option. Each entry specifies all the ways in which the option can be accessed.

Changing the View Given by a Table

Here are some ways in which you can change the set of crossings whose values are displayed in a table:

- Double-click any underlined row heading or column heading. The underlined headings are non-leaf members of the hierarchy that they belong to. Double-clicking an underlined heading expands or collapses the portion of the hierarchy that is subordinate to it.
- Select a **Drill**, **Collapse**, or **Expand** option.
- Select a different member of a slicer dimension, if the table has slicer dimensions. This switches the display to a slice of values that is associated with the newly selected slicer member.
- Pivot the table, using either the **Pivot** option or drag-and-drop techniques.
- Select a dimension by selecting one of its members. Then use the **Show Members** option to define a different subset of the members of that dimension to include in the table.
- Hide selected crossings using visibility rules (available only to administrators) or the **Filter Member Combination** option (available in form templates and reports).
- Use the **Table Properties** option to set a different default member for a dimension that is not part of the table layout, or to switch to a different model.

You can also filter, rank, or sort table data.

See Also

[“Pivoting a Table” on page 43](#)

Pivoting a Table

Overview of Pivoting

Any change in the role that any dimension plays in a table is a case of pivoting the table. Pivoting a table includes all of the following:

- adding a row dimension, column dimension, or slicer dimension
- removing a row dimension, column dimension, or slicer dimension

- moving a dimension from one part of the table to another: from row to column or slicer, from column to row or slicer, from slicer to row or column
- changing the display order of the slicer dimensions
- changing the nesting order of the row dimensions or the column dimensions

Note: In a data-entry form, you can drag a dimension from one position to another (for example, from rows to columns). However, you cannot add or delete dimensions, and the arrows in the Pivot window are disabled.

Using the Pivot Option

To open the Pivot window: select **Members ► Pivot**.

Drag-and-Drop Pivoting

You can do many types of pivoting by dragging a table cell onto a target cell, as follows:

- 1 Select the dimension that you want to drag by clicking a member cell of the dimension. For a slicer dimension, you can also click the cell that holds the name of the dimension.
- 2 Without pressing a mouse button, move the cursor to the border of the selected cell. The directional arrow symbol appears. Make sure that this symbol is visible before you continue.
- 3 Press the left mouse button and drag the selected cell to a target cell.
- 4 When the selected cell coincides with the target cell, release the mouse button. A pop-up message appears, asking if you want to replace the contents of the destination cells.
- 5 Click **OK**.

The role of the dragged dimension changes as specified by the following table.

Target Cell	Resulting Role of the Dragged Dimension
slicer cell	slicer dimension immediately before the slicer dimension that contains the target cell
row heading cell	row dimension immediately to the left of the row dimension that contains the target cell
data cell adjacent to a row heading cell	row dimension adjacent to the data cells
column heading cell	column dimension immediately above the column dimension that contains the target cell
data cell adjacent to a column heading cell	column dimension adjacent to the data cells
cell outside the table	none (dimension is removed from the table)

These drag-and-drop operations have the following limitations:

- The target table cell must occupy only a single Excel spreadsheet cell. A large row heading cell or column heading cell that results from nesting two or more row dimensions or column dimensions cannot be the target cell of a drag-and-drop pivot.
- If the dragged table cell occupies more than one Excel spreadsheet cell, then you must drop the first spreadsheet cell that is part of the dragged table cell onto the target table cell.
- You cannot drag a row or column dimension into a slicer dimension if the table does not already have a slicer dimension.
- You cannot drag a dimension into the last slicer position, after all existing slicers.

Removing Dimensions with the Delete Key

You can remove a dimension from a table in the following way:

- 1 Select a member of a row or column dimension, or the dimension label of a slicer dimension.

2 Press the **Delete** key.

Note: You cannot remove the last row dimension or the last column dimension of a table.

Using Excel-Based Calculated Members

About Calculated Members

You can add calculated members to a read-only table, a data-entry table, or a supplemental schedule. Each calculated member is associated with a formula that is used to calculate its values. The calculation is done after any server-side calculations.

Calculated-member formulas use the syntax of Microsoft Excel formulas. In addition to Excel functions and expressions, the formula can include the calculated-member functions that are provided by the SAS Financial Management Add-In for Microsoft Excel.

To add, delete, or edit a calculated member, click anywhere in the table and select **Members ► Calculated Members**.

To view the formula for a calculated member, select its heading in the table or supplemental schedule. The formula is displayed in a tooltip.

For more information, see the online Help for the calculated-member wizard and the dictionary of calculated-member functions. In addition, the *SAS Financial Management: Formula Guide* contains detailed information and examples.

References to Members That Are Not on the Table

Occasionally the formula for a calculated member refers to a member that is not on the table. The referenced member might be excluded because of member selection rules or property selection rules, or it might be hidden by a filter. The results are as follows:

- In a read-only table or a data-entry table, the reference becomes a CDA function and continues to work correctly in Excel.
- In a supplemental schedule, the formula is invalid. A calculated-member formula works correctly only if every member or measure that it refers to is navigable in the supplemental schedule.

Using the Frequency Dimension

The frequency dimension provides a supplementary perspective on the dimension of time. It is not a fully independent dimension. The frequency dimension is predefined and cannot be revised. It consists of a single flat set of members.

By combining a given time period with different members of the frequency dimension, you can display different but related numeric values that are associated with that time period. For example, consider a revenue account such as Total Sales and a month such as June 2010. You can combine these with various frequency members as follows:

- Combine them with Period Activity to represent total sales for June 2010. This is the default if you do not include the frequency dimension in your table.
- Combine them with Year To Date to represent total sales for the year 2010 through June 2010.
- Combine them with Quarter To Date to represent total sales for the quarter that includes June 2010, through June 2010.
- Combine them with Life To Date to represent total sales for the time span that is covered by your SAS Financial Management data, through June 2010.

Formatting Tables

Modifying Formats for SAS Financial Management Tables

You can modify the formatting in a SAS Financial Management table in these different ways:

Note: These options apply only to tables that are displayed in the SAS Financial Management Add-In for Microsoft Excel.

- **Format Cells** applies ad hoc formatting to a selected cell or range of data cells in a table.
- **Format Members** assigns formatting styles to members. The style applies to all the data cells in the selected table with crossings that contain those members.
- **Cell Styles** applies formatting to table components including headings. This option can apply to a table, or you can create a template that applies to new reports. Using style merging, you can also apply style changes to existing reports or form templates.

You can affect the table display in other ways such as hiding slicers, selecting the display methods for zero and invalid values, and selecting whether to wrap labels. For details, see the online Help for table properties.

Format Cells

Use the Microsoft **Format Cells** option to apply ad hoc formatting to a selected cell or range of cells.

Apply this option only to data cells, not to row or column headings. Row and column headings revert to their original formatting when the display is refreshed.

To include these changes when you save the file, you must take the following additional steps:

- 1 Select a range of cells that includes the formatted cells.
- 2 Select **Attach Style Changes**.

Format Members

Use the Format Members window to assign cell formatting styles to members. These styles are defined in the Microsoft Excel Cell Styles window. A style that is assigned to a member is applied to all the data cells whose crossings contain that member. This style affects only the selected table.

To use this option, right-click a cell in the table and select **Members ► Format Members**.

Modify Cell Styles

Overview

Styles for headings and cells are defined in the Cell Styles window of Microsoft Excel. You can create new styles and apply them to the table's components, or you can modify existing styles. For example, you might want to change the font size or background color for headings, or you might want to change the color of protected cells.

On the **Styles** tab of the Table Properties window, styles can be applied to the functional components of a table such as row headings, column headings, and data cells. Notice that separate styles are assigned to row headings and drillable row headings, and to column headings and drillable column headings.

The cell styles are also available in the Format Members window.

Save Styles in a Template

You can save these cell styles in a template and apply them to new or existing reports and form templates. Follow these steps:

- 1 Open a SAS Financial Management report.
- 2 Open the cell styles properties (in Excel 2010, select **Home (Styles) ► Cell Styles**).

- 3 Modify the SAS Financial Management cell styles. For example, you might modify font colors or numeric formats. You can see the effect of any changes in the report. Do not create new styles. Instead, modify the existing styles.
- 4 With the report still open, open a new Excel workbook.
- 5 In the new workbook, select **Home (Styles) ► Cell Styles**.
- 6 At the bottom of the **Cell Styles** window, select **Merge styles**, and select the report with the modified styles.

The SAS Financial Management styles are copied to your new (blank) workbook.
- 7 Save the workbook as a template.

When you create new reports, begin with the template; it has your modified cell styles.

Apply Styles to an Existing File

To apply the cell styles to an existing report or to a form template:

- 1 Open the Excel template with the modified cell styles.
- 2 Open the report or form template.
- 3 Merge the cell styles from the Excel template with the styles in your report or form template.

When you are asked if you want to merge styles with the same name, respond **Yes**.

Resolving Conflicts between Format Specifications

If there are conflicts in data cells between formatting that you set in these different ways, then the conflicts are resolved by the following precedence ordering:

- 1 formatting that is set with the Microsoft **Format Cells** option
- 2 formatting that is set with **Format Members**

3 formatting that is set with **Table Properties**

It is also possible to have conflicts within **Format Members** between members of different dimensions. These conflicts are resolved by the **Dimension Precedence** tab of the Format Members window.

Coordinating Slicers between Tables

If the same hierarchy plays the role of a slicer in two or more read-only tables or data-entry tables in the same workbook, then it is possible to connect these slicers in such a way that selecting a slicer member in one table automatically selects the same slicer member in other tables. This is a one-way relationship; a slicer in one table controls a slicer in a second table, but not the reverse.

For example, you can give the organization slicer of table Y control over the organization slicer of table Z. If a user selects Headquarters in the organization slicer of table Y, then Headquarters is automatically selected in the organization slicer of table Z. The organization slicer of table Z does not permit direct selection of organizations; it merely reflects the selections that are made in table Y.

A table can have a mix of controlling slicers and stand-alone slicers or a mix of controlled slicers and stand-alone slicers. However, a table cannot have a mix of controlling slicers and controlled slicers.

To establish a control connection between slicers in different tables:

- 1 Select any cell in the table that you want to put under the control of another table.
- 2 Select **Table Properties**.
- 3 In the Table Properties window, select the **Slicers** tab.
- 4 Use the **Shared Slicers** section of the **Slicers** tab to define the connection between tables. For details, see the online Help for the Table Properties window.

Note: This option is available for read-only tables and for data-entry tables in form templates.

Adding Comments to a Cell

About Cell Comments

A cell comment consists of text that you attach to a single cell in a read-only table or a data-entry table. A cell comment is associated with the cell crossing.

Note: If comments are not enabled for a report or a form, you can view existing comments but you cannot add new ones.

Add a Comment

To add a comment to a cell:

- 1 Select a data cell.

The cell does not have to be writable, but it must be readable. You cannot add cell comments to supplemental schedules.

- 2 Click **Cell Comments** in the **Tools** group on the **SAS Financial Management** tab.

- 3 Click **Add Comment**.

- 4 If the comment is only for your own use, select **This comment is private**.

Otherwise, the comment might be available in other forms or reports.

Note: You cannot go back later and change the comment's privacy setting. For example, to make a public comment private, you must delete the comment and re-create it.

- 5 Click **OK**.

The comment is stored, and the cell's dimension members (other than Frequency and Currency) are included as attributes. If a dimension is off the table, the default read member for that dimension is used.

View Comments

To view cell comments:

- 1 Select a cell with a red flag in its upper right corner.

Any comments that are associated with that crossing appear in the Cell Comments window. You can leave this window open (or minimized). Its contents change as your cell selections change.

- 2 To view comments that are associated with subordinate members, select **Show contributing comments indicator**.

In the table, select a cell with a blue flag in its upper left corner. All comments that are associated with any of the crossing's subordinate members appear in the Cell Comments window.

From the drop-down menu at the right of the comment heading, you can reply to a comment, edit the most recent comment or a reply, sort the replies, or delete comments or replies.

Note: If a reply from someone else is attached to a comment, you cannot delete it. Unless you are an administrator, you can delete only comments and replies that you made.

View the Crossing for a Comment

To view the crossing for a comment:

- 1 Click the **Slice to contributing crossing** button .

The display changes to reflect the crossing that is associated with this comment.

- 2 To display the previous crossing, click **Return to original view**.

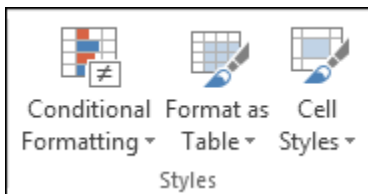
However, be aware that if you have modified the display (for example, by rearranging columns, rows, or slicers), clicking this button might not take you to the original view.

Creating and Applying Cell Styles to a Table

Creating Cell Styles

To create a new cell style that you can apply to a table:

- 1 Open an Excel workbook. If necessary, log on to the SAS Financial Management Add-in for Microsoft Excel.
- 2 On the **Home** tab, in the **Styles** group, click **Cell Styles**, and then right-click the FM custom style that you want to modify.



TIP If you do not see the **Cell Styles** button, in the **Styles** group, and then click the button in the lower right corner of the styles box.

- 3 In the **Style name** box, enter an appropriate name for the new cell style.
- 4 Click **Format**.
- 5 On the **Number**, **Alignment**, **Font**, **Border**, **Fill**, and **Protection** tabs, make the changes that you want.
- 6 Click **OK** to close the Format Cells dialog box.

- 7 Click **OK** to close the Style dialog box.
- 8 Create a new, or open an existing read-only or data-entry table.
- 9 On the **SAS Financial Management** tab, click on the table and click **Properties** in the **Tables** group.
- 10 On the **Styles** tab, in the **Component Styles** section, select the table component to which you want to apply the new cell from the **Table component** drop-down menu. Select the new customer cell style from the **Style component** drop-down menu.
- 11 Click **OK** to save and close the **Table** properties dialog box.

Applying the New Cell Styles

Once you have created the cell style, you do not need to re-create it.

To apply the new cell style:

- 1 Open the Excel workbook that contains the new cell style.
- 2 Open the file that contains the table or tables to which you want to apply the style.
- 3 In the workbook to which you want to apply the new cell style, on the **Home** tab, in the **Style group**, select **Cell Styles**.
- 4 Select **Merge Styles** at the bottom of the **Cell Styles** drop-down menu.
- 5 From the Merge Styles dialog box, select the workbook that contains the styles that you created that you would like to merge.
- 6 Click **OK** to copy the cells styles into the workbook.
- 7 Click on the read-only or data-entry table in the workbook.
- 8 On the **Home** tab, in the **Tables** group, click **Properties**.

- 9 On the **Styles** tab, in the **Component Styles** section, select the table component to which you want to apply the different style from the **Table component** drop-down menu.
- 10 Click **OK** to save and close the Table Properties dialog box.
- 11 Save your template or report to save the cell styles that you have applied.

Copying a Read-Only Table to a CDA Table

To copy the currently displayed slice of a read-only table to a CDA table:

- 1 Select the read-only table. To do this, click the extreme upper left cell of the table. If the table has slicers, then this is the cell that contains the name of the top slicer. If the table does not have slicers, this is the cell at the intersection of the top row of column headings and the left-most column of row headings.

The entire table is highlighted when you select it.

- 2 Select **Copy as CDA**.
- 3 In the **Table position** field of the Copy as CDA window, enter the cell reference that will become the upper left corner of the CDA table. For example, if you want the upper left corner of the CDA table to be in cell H24, type `H24` in this field. If you want it to begin in cell B3 of Sheet2, type `Sheet2 !B3`.

- 4 Click **OK**.

The original read-only table remains in existence. A corresponding CDA table is created at the location that you specified.

You can also select any range of cells within a read-only table and convert the selected range to a CDA table.

Note: The **Copy as CDA** option is intended primarily for tables in which all the row, column, and slicer headings are members. If you apply it to a table that has any row, column, or slicer headings that are the values of member properties, then the resulting CDA table might be imperfect.

Creating a Chart from a Table

With the **Create Chart** option, you can create an ad hoc Microsoft Excel PivotChart from a SAS Financial Management table. The chart includes the members that are currently displayed in the table.

To create a chart:

- 1 Click one of the table cells.
- 2 Select **Edit ► Create Chart** from the pop-up menu.
- 3 Move the chart to an appropriate location in the worksheet.

As you make changes in the table (such as changing a value in a data-entry table or selecting a different slicer member), those changes are reflected in the chart.

For additional customizations, use the **PivotChart Tools** and the **PivotTable Field List** that are available when you click anywhere in the chart. For more information about working with a PivotChart, see the online Help for Microsoft Excel.

Copying a CDA Table to a Read-Only Table

To copy a CDA table to a read-only table:

- 1 Select the exact range of cells that contains the header of the CDA table. These are all the cells above the column headings that contain general information about the table.
- 2 Select **Copy as Read-only Table**.

A corresponding read-only table is created in a new worksheet. The upper left cell of the new read-only table is A1. The new read-only table includes all the members of its hierarchies, regardless of any member restrictions in the source CDA table.

6

Data Filters, Ranking, and Sorting

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Filtering Table Data

About Data Filters

A data filter is designed to filter values in a table based on specific criteria such as the following:

- Sales > 100000
- Sales > 100000 AND GrossMargin >10%

Data that matches the filter expression is displayed. If you combine data filters and ranking or sorting in the same table, the filter is always applied first.

Where Data Filters Are Applied

You can define a data filter for a read-only table or a data-entry table. The filter is applied to all members that the user can display (even if it requires expanding a row or column or selecting a different slicer member), as long as the members are readable.

If you apply a data filter to a data-entry table, the table becomes read-only and options such as **Spread** are unavailable. Removing the data filter restores the original data and the cells' writability.

You cannot apply a data filter to a supplemental schedule or a CDA table.

Define a Data Filter

To create or edit a data filter for a data-entry table or a read-only table:

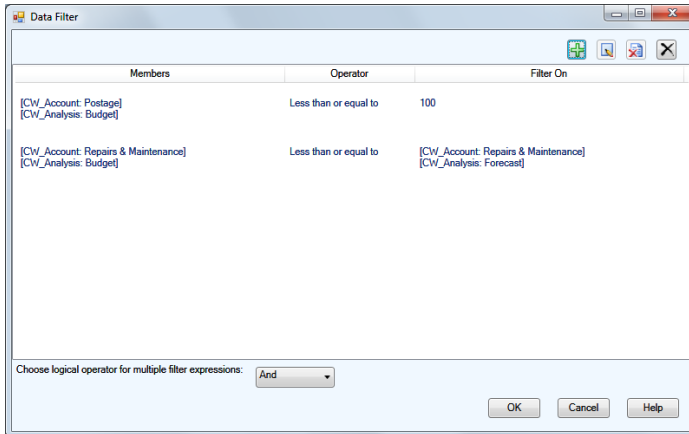
- 1 Select a cell in the table.

TIP To pre-populate the data filter selections, select the heading for the row or column that you want to filter. If the heading contains nested dimensions, select the innermost dimension.

2 Select **Data Filter**.

3 In the Data Filter window, define one or more filter expressions.

Multiple filter expressions must be on the same axis. They are connected by AND or OR.



For details, see the online Help for the Data Filter window.

The rows or columns that meet the filter expressions are displayed, and their hierarchies are flattened. The display might include rows or columns that were collapsed before the filter was applied. Client-side calculated members are removed from the display.

A filter icon  is displayed above the row headings. Click the icon to view the filter expression in a pop-up window.

Remove a Data Filter

To remove a data filter expression, select **Data Filter**. In the Data Filter window, select the expression and click the Delete selected filter expression button .

To remove all filter expressions, select **Data Filter**. In the Data Filter window, click the Delete all filter expressions button .

Data Filters and Debit and Credit Accounts

Regardless of the account balance type (credit or debit) or format (positive or negative), the filter expression contains a simple numeric comparison. A value of 100 is always considered greater than a value of -100. Define the filter accordingly.

Note: Your data filter can compare a debit account to a credit account. However, you cannot apply a data filter to a row or column that contains both debit and credit accounts.

Ranking Table Data

About Ranking

Ranking is designed to rank values in a table based on specific criteria such as the following:

- Display the bottom five regions by profit margin.
- Display products that generate the top 20% in sales.

Where Ranking Can Be Applied

In the Excel add-in, you can apply ranking to read-only tables or data-entry tables. The ranking is based on the values in the table's rows and columns, including data that might not currently be visible because the user drilled down or collapsed part of a row or column. It does not include client-side calculated members, and it cannot be applied to supplemental schedules or CDA tables.

If you apply ranking to a data-entry table, the table becomes read-only and options such as **Spread** are unavailable. Removing ranking restores the original data and the cells' writability.

Rank Data

To create or edit a table ranking:

- 1 Select a table cell.

TIP To pre-populate the ranking selections, select the heading for the row or column that you want to rank. If the heading contains nested dimensions, select the innermost dimension.

- 2 Select **Rank** ► **Create Rank** or **Rank** ► **Edit Rank**.
- 3 In the ranking wizard, define the dimensions and members to be ranked and the ranking expression:
 - top or bottom n values: the specified number of values from the top or bottom of the ranking, in order.

Note: Duplicate values, if they exist, are returned for the last item in the ranking. For example, if you rank the top three products in sales volume, and two products tie for third place, both products are displayed.

 - top or bottom n percent: crossings whose cumulative values make up at least the top or bottom n percent of the total value. See [“How Rank by Percent Is Applied” on page 64](#).

The rows or columns that match the ranking expression are displayed, and their hierarchies are flattened. Client-side calculated members are removed from the display.

A ranking icon  is displayed above the row headings. Click the icon to view the ranking expression in a pop-up window.

Rank Data within a Group

If the other axis for a ranking expression contains more than one dimension, you can choose to group the results by one of the outer dimensions.

For example, define a ranking expression that selects the top three products in sales, where sales is a column dimension. The row headings are region and product. You have two choices:

- You can display the top three products overall.
- You can select region as a grouping factor and display the top three products in each region.

The **Group By** drop-down list determines the grouping.

Remove Ranking

To remove ranking from a table, click anywhere in the table and select **Rank ► Remove Rank**.

Note: Pivoting the table or removing members from the table might also remove the ranking.

How Rank by Percent Is Applied

If you rank data by **Top *n* Percent of the total value**, the ranking function first sorts the data from highest to lowest value. It returns the highest values whose cumulative value is greater than or equal to the percent that you specify.

Suppose that a data-entry table has a column with five values that sum to 40.00:

	R1002
Rent	2.00
Water	4.00
Electrical	8.00
Telecom	20.00
Repairs & Maintenance	6.00

You rank these values, selecting the top 50% of the total value. The ranking function returns the highest values with a cumulative total that is greater than or equal to 20.00. In this case, that is a single value:

	
	R1002
Telecom	20.00

You edit the ranking, selecting the bottom 50% of the total value. The ranking function returns the lowest values with a cumulative total that is greater than or equal to 20. In the data-entry table, the displayed cells would look like this:

	
	R1002
Rent	2.00
Water	4.00
Repairs & Maintenance	6.00
Electrical	8.00

Now assume that the column to be ranked contains negative values as well as positive values:

	R1002
Rent	(2.00)
Water	4.00
Electrical	6.00
Telecom	(1.00)
Repairs & Maintenance	3.00

The total value is 10. You select the top 100% of the total value. The ranking function returns the highest values with a cumulative total that is greater than or equal to 10. The displayed cells would look like this:

	
	R1002
Electrical	6.00
Water	4.00

It might seem counterintuitive that selecting 100% does not return all the values. However, the 100% mark (10) is reached with just the values of 6 and 4.

Note: If the total for the row or column is zero, no results are returned.

Ranking for Debit and Credit Accounts

- **Debit accounts:** If ranking is applied to debit accounts, the top-ranked values are the ones with the highest debit values, regardless of how those values are displayed (as defined in the model or table properties).

By default, debit accounts display a positive debit balance using positive numbers. If the row or column being ranked contained values of 20, 30, 10, -10, -5, 0, 10, a ranking of the top three values would return 30, 20, 10, 10, with a tie for third place.

- **Credit accounts:** If ranking is applied to credit accounts, the top-ranked values are the ones with the highest credit values, regardless of how those values are displayed.

By default, credit accounts display a negative credit balance using negative numbers. If the row or column being ranked contained values of -10, 5, -30, 0, -20, a ranking of the top three values would return -30, -20, -10.

Note: You cannot apply ranking to a row or column that contains both debit and credit accounts.

Sorting Table Data

About Sorting

The **Sort** option enables you to sort table data by the values in a single row or column. It can be used for purposes such as the following:

- Display total sales in descending order.
- For each region, display cost of sales in ascending order.

Where Sorting Is Applied

Sorting can be applied to read-only tables or data-entry tables. It does not include client-side calculated members, and it cannot be applied to supplemental schedules or CDA tables.

If you apply a sort to a data-entry table, the table becomes read-only and options such as **Spread** are disabled. Removing the sort restores the original order and the cells' writability.

Sort a Column or Row

To sort a table by the values in a row or column:

- 1 Make sure that all the members that you want to display are on the table.
The sort applies only to members that are currently displayed.
- 2 Right-click a row or a column heading and select **Sort ► Ascending** or **Sort ► Descending**.

If there is more than one row or column dimension, select a member of the innermost dimension.

The display is sorted according to the values in that row or column, and the hierarchies in that dimension are flattened. A sort direction icon indicates whether the sort is ascending or descending.

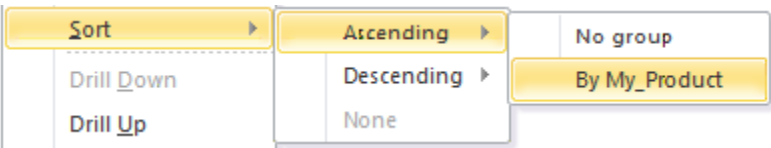
If a cell is not readable, it appears as an empty cell at the end of the sorted row or column. Client-side calculated members also appear as empty cells at the end of the sorted row or column.

Sort by Group

If the table groups the display by using two or more row or column dimensions, you have the option of sorting data within members of a nested dimension.

For example, create a table with two row headings, **My_Product** and **Customer**, and one column heading, **My_Account**. **My_Product** is the outer row heading and groups the display.

Right-click a member of the **My_Product** dimension and select **Sort ▶ Ascending ▶ By My_Product**.



The column is sorted within each account. If you select **Sort ▶ Ascending ▶ None**, the sort applies to the entire column.

Note: Member properties and custom properties cannot be used as grouping criteria. The sort-by functionality is not available if a data filter is applied to the table.

Cancel a Sort

To cancel a sort, right-click any row or column heading and select **Sort ▶ None**.

A sort is also canceled if you create another sort or if you remove the sort member from the display (for example, by pivoting or by collapsing the hierarchy).

7

Cell Protection

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Adding Cell Protection Directly to a Form 70

About Cell Protection

When cell protection is applied, a cell is protected from direct data entry, including actions such as the following:

- manual data entry
- spread
- the effects of writing to parent members

However, the values of these protected cells can still change as the result of indirect actions, including the following:

- calculations
- changes in the values of descendants that roll up to the protected cell
- changes in exchange rates
- changes in previous periods when frequency is To Date (for example, Year To Date or Quarter To Date)
- data that is loaded via SAS Data Integration Studio jobs

- data that was seeded from other models
- rules-based adjustments and allocations
- manual adjustments

Note: For information about protection by means of hold rules, see [“Data Entry with Hold Rules” on page 29](#).

Adding Cell Protection Directly to a Form

In a data-entry table, protected cells are displayed in gray and are read-only.

If cells are protected by rules that were defined in a model or a form template, you cannot undo that protection in an individual form. However, you can add further protection to a form, as follows:

- To protect one or more cells, select the cells and select **Protect Cell**.
Only writable cells can be protected.
- To undo protection that was set in this form for one or more cells, select the cells and select **Unprotect Cell**.
- To undo all cell protection that was set in this form, click anywhere in the table and select **Unprotect All Cells**.

The changes that you make are saved automatically and apply to any users who open the same form.

Note: Protection that you apply to a parent member also applies to its virtual child (VC member), and vice versa.

8

Hold Rules

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Designing Holds for Data-Entry Forms

Overview

Note: This feature applies only to bottom-up form sets.

If you place a hold on a cell in a data-entry table, it is protected from changes such as allocations and consolidations. For example:

- If the hold is on a leaf cell and its parent cell is writable, the hold is honored and the leaf cell receives no allocation from the parent.

- If the hold is on a parent cell, its descendant cells might change in value, but the total that rolls up to the parent is unchanged. Instead, the change in value is subtracted from the other descendant (leaf) cells.

If one of the leaf cells also has a hold, its hold is honored, and it does not participate in the distribution to the descendant cells.

Cells that are on hold are not protected from actions such as users entering a value, copying, and pasting, the **Spread** and **Adjust Values** options, and entering data in a supplemental schedule. To protect a cell from those types of changes, use cell protection rules. Cells on hold are also not protected from the results of forecasts or custom analytics stored processes.

You cannot place a cell on hold if a formula is attached to it.

Enabling Hold Rules

An administrator enables hold rules in the table properties of a form set template. The rules specify the dimensions and levels within which holds can be placed.

Each table has its own hold rules. However, a hold that is created in one table applies to another table in the same form, if the following conditions are true:

- the other table uses the same model
- the other table enables hold rules
- the other table's hold rules include the cell with the hold

For a detailed explanation of setting hold rules, see the online Help for the table properties.

Who Can Place a Hold

If **Allow Hold Rules** is set in the table properties, cells can be placed on hold in a form or a form template.

- In a form template, an administrator can enable and define hold rules, place cells on hold, and remove holds.
- In a form, users can place and remove holds.

The holds persist without selecting **Save Form Design**.

Users cannot remove holds that are placed in the form template, and they cannot enable or disable hold rules.

The cell's color indicates that it is being held. See [“Entering Data” on page 26](#).

Placing a Hold

To place one or more cells on hold, select the cells and select **Holding ► Hold Value**.

To remove the hold from one or more cells, select the cells and select **Holding ► Unhold Value**.

To remove all holds, select **Holding ► Unhold All**.

Hold on a Parent Cell

Suppose that you place a hold on a cell that is associated with a parent member. When a user enters a value in a descendant of that member, the change in value is distributed among the other eligible descendants. Higher members of the hierarchy are not affected.

The amount that is distributed to a cell depends on its relative weight. If automatic allocation (**Allocate from parent members other than time using predefined weights**) is enabled, the cell weights depend on the Allocation Weights table when you write to a parent cell. Otherwise, each cell's value acts as its weight. In this case, automatic allocation is not enabled.

If a cell has a weight of zero, it receives no distribution.

For an example, see [“Example: Hold on Parent Member” on page 29](#).

Hold on a Leaf Cell

As another example, suppose that automatic allocation is enabled. The allocation weights are **Same as target**. A leaf cell is being held.

Operating Expense	9.00
Administrative Expense	9.00
Office Supplies	1.00
Postage	1.00
Other Administrative Expense	0.00
Facilities	7.00
Rent	4.00
Water	1.00
Electrical	1.00
Telecom	1.00
Repairs & Maintenance	0.00
Other Facilities Expense	0.00

When a user writes to the parent cell, its value is allocated to its writable descendants, except for the cell that is on hold.

Operating Expense	17.00
Administrative Expense	17.00
Office Supplies	2.00
Postage	1.00
Other Administrative Expense	0.00
Facilities	14.00
Rent	8.00
Water	2.00
Electrical	2.00
Telecom	2.00
Repairs & Maintenance	0.00
Other Facilities Expense	0.00

Holds on a VC Cell

Placing a hold on a parent cell does not affect its virtual child (VC). If you place a hold on a VC cell, you can write directly to the VC cell, but it cannot receive a distribution from the parent.

For example, you enable writing to parent cells, with data stored in the parent's VC member. If the parent cell is held, you can write directly to the parent, and the change in the parent's value is added to the VC member. In contrast, if the VC cell is held, it is protected against indirect changes, and a write to the parent fails,

Protected Cells

Cell protection protects a cell from direct changes. If hold rules are enabled, and a protected cell lies within the scope of the hold rules, the cell is also protected from indirect changes as described in the [“Overview” on page 71](#). The cell's color changes to indicate that it is being held as well as protected.

Side Effects of Hold Rules

Hold rules can have side effects for cells that were not affected by the initial data entry.

Suppose you place holds on two parent cells in different dimensions. A user enters a value in a child of Parent A that causes a distribution to other leaf cells in one dimension. Some cells in the distribution would normally roll up to Parent B in the other dimension. Because Parent B is also on hold, a second distribution occurs. If additional cells are on hold, there can be a cascading effect of distributions.

To illustrate this case, red boxes have been added to outline the ranges for the two holds. Notice the overlap at the Rent/R1001 cell.

	R1001	R1002	R1003	R_series
Operating Expense	8.00	6.00	8.00	22.00
Administrative Expense	8.00	6.00	8.00	22.00
Office Supplies	1.00	1.00	1.00	3.00
Postage	1.00	1.00	1.00	3.00
Other Administrative Expense	1.00	1.00	1.00	3.00
Facilities	5.00	3.00	5.00	13.00
Rent	1.00	1.00	1.00	3.00
Water	1.00	1.00	1.00	3.00
Repairs & Maintenance	1.00	1.00	1.00	3.00
Telecom	1.00	0.00	1.00	2.00
Other Facilities Expense	1.00	0.00	1.00	2.00

You enter a 5 in the Water/R1001 cell. The first distribution is for the Operational Expense/R1001 hold, because Water is a descendant of Operational Expense.

However, those changes affect the Rent/R1001 cell, and R1001 is a descendant of R series. A second distribution is necessary and affects Rent/R1002 and Rent/R1003. The result is below:

	R1001	R1002	R1003	R series
Operating Expense	8.00	6.29	8.29	22.57
Administrative Expense	8.00	6.29	8.29	22.57
Office Supplies	0.43	1.00	1.00	2.43
Postage	0.43	1.00	1.00	2.43
Other Administrative Expense	0.43	1.00	1.00	2.43
Facilities	6.71	3.29	5.29	15.29
Rent	0.43	1.29	1.29	3.00
Water	5.00	1.00	1.00	7.00
Repairs & Maintenance	0.43	1.00	1.00	2.43
Telecom	0.43	0.00	1.00	1.43
Other Facilities Expense	0.43	0.00	1.00	1.43

Hold Rules and Dimension Precedence

In these cascading distributions, a cell can be used only once. After a cell has been updated by one distribution, it cannot be updated by another distribution as part of the same Write operation. For the write to succeed, there must be enough available cells to handle all necessary distributions.

You can use dimension precedence to affect the order in which the distributions occur and the number of cells that are affected by a distribution. Distributions take place in this order:

- 1** cells that are directly affected by the initial write to parent or child cell:
 - a** the first dimension in the hold rules, from lowest to highest level
 - b** the next dimension in the hold rules, and so on
- 2** cells that are not directly affected by the initial write, but are affected by the distribution process:
 - a** the first dimension in the hold rules, from lowest to highest level
 - b** the next dimension in the hold rules, and so on

Here is an example with two held parent members:

	R1001	R1002	R1003	R series
Operating Expense	8.00	6.00	8.00	22.00
Administrative Expense	8.00	6.00	8.00	22.00
Office Supplies	1.00	1.00	1.00	3.00
Postage	1.00	1.00	1.00	3.00
Other Administrative Expense	1.00	1.00	1.00	3.00
Facilities	5.00	3.00	5.00	13.00
Rent	1.00	1.00	1.00	3.00
Water	1.00	1.00	1.00	3.00
Repairs & Maintenance	1.00	1.00	1.00	3.00
Telecom	1.00	0.00	1.00	2.00
Other Facilities Expense	1.00	0.00	1.00	2.00

The user enters 20 into the Postage/R1001 field. This value directly affects both holds.

If Product comes before Account in dimension precedence, the distribution is first applied to the Operating Expense/R1001 cell and affects only the first column in the table. The red rectangular areas show where the distribution occurs.

	R1001	R1002	R1003	R series
Operating Expense	8.00	6.00	8.00	22.00
Administrative Expense	8.00	6.00	8.00	22.00
Office Supplies	1.00	1.00	1.00	3.00
Postage	1.00	1.00	1.00	3.00
Other Administrative Expense	1.00	1.00	1.00	3.00
Facilities	5.00	3.00	5.00	13.00
Rent	1.00	1.00	1.00	3.00
Water	1.00	1.00	1.00	3.00
Repairs & Maintenance	1.00	1.00	1.00	3.00
Telecom	1.00	0.00	1.00	2.00
Other Facilities Expense	1.00	0.00	1.00	2.00

Results are as follows:

	R1001	R1002	R1003	R series
Operating Expense	8.00	6.00	8.00	22.00
Administrative Expense	8.00	6.00	8.00	22.00
Office Supplies	(1.71)	1.00	1.00	0.29
Postage	20.00	1.00	1.00	22.00
Other Administrative Expense	(1.71)	1.00	1.00	0.29
Facilities	(8.57)	3.00	5.00	(0.57)
Rent	(1.71)	1.00	1.00	0.29
Water	(1.71)	1.00	1.00	0.29
Repairs & Maintenance	(1.71)	1.00	1.00	0.29
Telecom	(1.71)	0.00	1.00	(0.71)
Other Facilities Expense	(1.71)	0.00	1.00	(0.71)

In contrast, if Account comes before Product in dimension precedence, the distribution for Administrative Expense/R series takes place first. That distribution affects all the available leaf cells:

	R1001	R1002	R1003	R series
Operating Expense	8.00	6.00	8.00	22.00
Administrative Expense	8.00	6.00	8.00	22.00
Office Supplies	1.00	1.00	1.00	3.00
Postage	1.00	1.00	1.00	3.00
Other Administrative Expense	1.00	1.00	1.00	3.00
Facilities	5.00	3.00	5.00	13.00
Rent	1.00	1.00	1.00	3.00
Water	1.00	1.00	1.00	3.00
Repairs & Maintenance	1.00	1.00	1.00	3.00
Telecom	1.00	0.00	1.00	2.00
Other Facilities Expense	1.00	0.00	1.00	2.00

There are no available cells left for the Operating Expense/R1001 distribution, and the Write operation fails.

For information about setting dimension precedence, see the online Help for the **Hold Rules** tab in the table properties.

Errors

Each stage of the process needs at least one writable cell to receive an allocation or distribution. If all eligible cells are protected from writing, the process fails. If all eligible cells have a weight of zero, or if the sum of all eligible cells (the total weight) is zero, the process fails. A pop-up message displays the error.

9

Supplemental Schedules

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Entering Data into a Supplemental Schedule

Overview

- A form can include one or more supplemental schedules, which provide additional information to support data entry. Each supplemental schedule is associated with a data-entry table and can contain two types of measures:
- measures that correspond to members of the data-entry table.
 - custom measures that were designed for use in a supplemental schedule. These measures might be numeric, or they might contain character strings, dates, or true or false values.

You can recognize a supplemental schedule by its last rows, which display column totals and averages in green cells. The corresponding crossings in the data-entry table

are also displayed in green. The cell information for these cells also explains their use in supplemental schedules.

Enter Data in a Supplemental Schedule

Bottom-Up Forms

In a bottom-up form, entering data into a supplemental schedule is like entering data into a data-entry table. You enter data in writable (yellow) cells of detail records for a specific member of the data-entry table. For example, the detail records might be associated with the organization dimension. When you open the form, only the detail records for your organization member (or members) are displayed.

At the bottom of the supplemental schedule are two rows that display totals and averages for the detail records. If a measure is also a member of the data-entry table, its total is saved in the corresponding crossing in the data-entry table when you save the supplemental data. (The **Detail averages** row is provided only for reference.)

Top-Down Forms

In a top-down form, the supplemental schedule contains a green **Non-allocated** row. This row displays the amount from the data-entry table that remains to be allocated in the supplemental schedule. You can distribute that amount among the detail records in the supplemental schedule. (For the top-level member of the target hierarchy, this row is empty.)

No data entered in a supplemental schedule is saved to the data-entry table in a top-down form. The supplemental schedule for a top-down form enables you to create supplementary records that contain more detail than would be available in the data-entry form.

Add a Detail Record

In addition to entering data into existing rows, you can add new detail records. For example, if the forms are being used for a budgeting process, each new detail record might represent a planned (but not yet hired) employee.

To add a row to a supplemental schedule, right-click a row heading and select **New Detail**. In the New Detail window, respond to the following prompts:

Code, Name, and Description

Enter a code, name, and description for the new detail record. The name appears in the row heading for the new record.

If you enter a code that already exists, a subscript is added when you click **OK**. For example, “MyDetail” might become “MyDetail[2]”.

Select the scope for this detail

This prompt appears only if the form set designer did not already set the scope for all detail records. Select one of the following:

- **Make it available to other form sets.**

The detail record is available to any forms that have the same detail dimension.

- **Limit its availability to this form set.**

The detail record is available to any forms in this form set.

Prompts for measures

Depending on form set design, you might be prompted to enter or select initial values for some of the custom measures. These fields are optional.

Some custom measures are subject to validity checks. For example, a numeric value or a date might need to fit within a specific range. If the value that you enter does not pass a validity check, an error symbol  is displayed above the prompt. An error message is displayed in a tooltip for the error symbol.

Note: The **Reset group defaults** link resets all prompts to their default values.

The following functions are also available for working with detail records:

- To modify the name and description of a detail record, right-click its row heading and select **Edit Detail**. (You cannot edit the member code.)
- To delete a detail record, right-click its row heading and select **Delete Detail**.
- To copy and paste values between detail records, select one or more records and select **Copy Detail Values**. Then select the destination records (within the same supplemental schedule) and select **Paste Detail Values**.

Save the Supplemental Data

After you enter data into a supplemental schedule, click **Save All Supplemental Data**. The option affects all supplemental schedules in the form.

In a bottom-up form, **Save All Supplemental Data** saves the totals for numeric measures to the related crossing in the source data-entry table. (Custom measures are not saved to the data-entry table.)

For a top-down form, no data is saved to the data-entry table. However, for both bottom-up and top-down forms, the supplemental schedule data is saved to the supplemental data provider's database. This data is available when you select **Contributing Data** for a cell.

10

Forecasting

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Generating a Forecast

Overview

In a form template, an administrator can generate a forecast that is based on the historical data in the model for the data-entry table. The Forecast wizard uses SAS High-Performance Forecasting to generate the forecast data.

The forecasting software uses sophisticated automatic model selection techniques to choose the best-fitting model for the data. After a successful forecast is complete, this model is stored on the server and can be reused for more efficient forecasting. The forecast parameters are saved with the form template.

If forecasting is enabled for data entry, then a user who is editing a form can also generate a forecast. The user’s forecast can reuse the model or request that a new model be generated. However, a forecast model that is generated from a form is not saved.

In addition, a user can choose to generate a forecast report when generating a forecast. The forecast report contains additional information about how the forecast was created.

When the forecast completes, the forecast report can be viewed in the SAS Visual Analytics Viewer.

For details, see the online Help for the Forecast wizard.

Note: Forecasting is available only in forms without supplemental schedules.

Execution Time

The time it takes a forecast to execute depends primarily on these factors:

- the number of by-variable members that are selected
- the number of historical and forecast time periods
- whether the forecast model is reused

Because execution time can be lengthy, a forecast runs asynchronously and sends a notification when the forecast completes.

If you have not closed the form or template, a pop-up message appears when the forecast completes. To view the results, refresh the display.

Forecast Results

The forecast results are written to the analysis member that was selected for the forecast. If you selected **Use confidence values**, then two additional members, for the upper bound and lower bound of the confidence interval, also hold forecast results.

Note: Writing the forecast results, like other data entry operations, causes driver formulas to be executed.

After generating a forecast, you can use the **Create Chart** option to create a Microsoft Excel PivotChart to display the results in Microsoft Excel. See [“Creating a Chart from a Table” on page 57](#). You can also use Excel’s copy and paste functionality to copy forecast results to another part of the table. For example, you might copy the forecast data or the lower bound data to the Budget member.

The object type for forecast-generated data is `forecast` and can be seen if you view contributing data for a crossing.

In SAS Financial Management Studio, the cycle properties contain a history record of the forecast. If the forecast failed, the record contains a link to a detailed report.

If you created a forecast report when you generated the forecast, then you can view additional information about how the forecast was derived by viewing the report in the SAS Visual Analytics Viewer.

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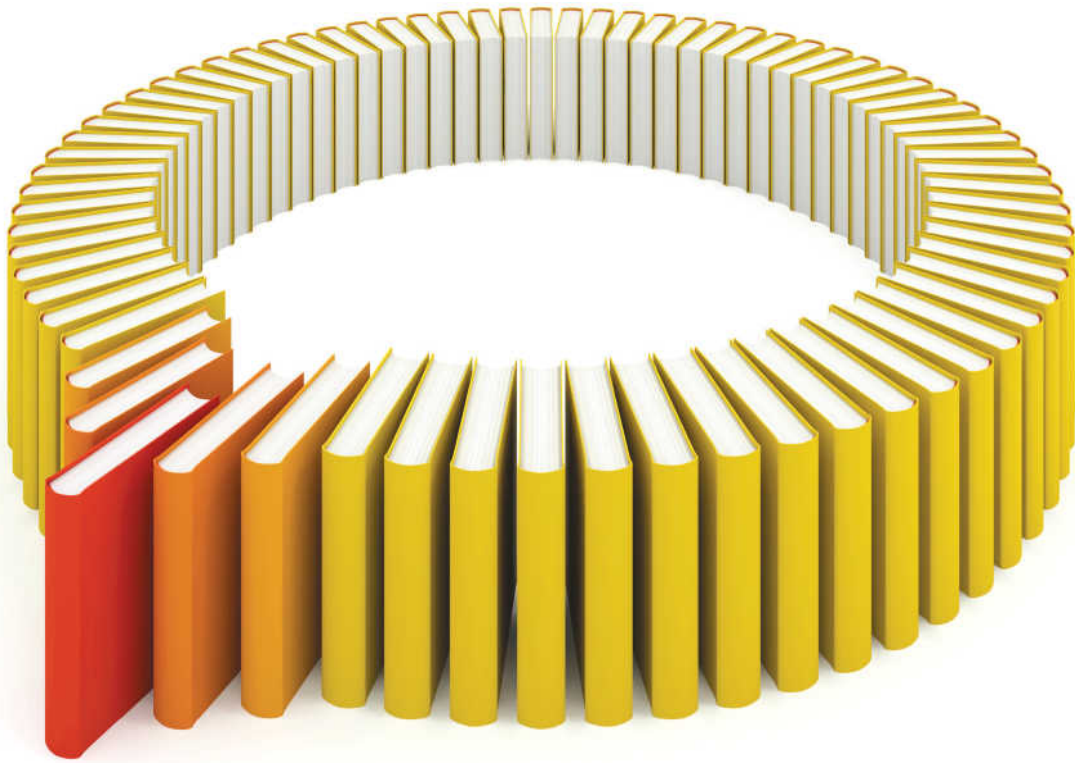
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