

## Remodeling Your Office – A New Look for the SAS® Add-In for Microsoft Office

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### ABSTRACT

Millions of people spend their weekdays in an office. Occasionally they hang a new picture, or add a new piece of furniture. Eventually their office gets so full they need to reorganize it to find items quicker and work more efficiently. After 15 years, the time has come for a new user interface for the SAS® Add-In for Microsoft Office. A redesigned ribbon allows quicker access to the most common operations. Where there used to be several task panes that each served a specific purpose, the task panes are now blended together into one panel that allows users to easily discover, execute, and manage SAS content. Come see these enhancements and many more in the latest version of the SAS Add-In for Microsoft Office.

### INTRODUCTION

Imagine your office. It's the place where you spend much of your time during the work day. When you first moved into the office, everything was neat and organized and had its own specific place. Now, fast forward 15 years. You've probably accumulated a lot more "stuff" to store. Books might be overflowing from your bookshelf. Files might be crammed into the file cabinet. Desk drawers might have gone from neatly organized to something resembling the infamous 'junk drawer' that we all have at home.

The same can be said for software. When software is first released, it has a specific purpose and everything is simple and neat. Then, new features are added. Then, even more new features are added. Sometimes, older features begin to work a new way or might be removed.

The SAS Add-In for Microsoft Office has been around for 15 years, and features have evolved. The supported versions of Microsoft Office went from Office 2000 and 2002 in the first release to support for Office 2016 with the latest release. New features were added, and older features were removed or replaced. To provide the best user experience, we needed to take a step back and reorganize the user interface.

This paper introduces you to version 8 of the SAS Add-In for Microsoft Office, featuring enhancements to the **SAS** tab on the Microsoft Office ribbon, as well as a new SAS panel. If you're a current user of the SAS add-in, you'll get a tour of what's new with version 8. If you're new to the SAS add-in, this will be a housewarming tour that will show you what's available.

### WHAT IS THE SAS ADD-IN FOR MICROSOFT OFFICE?

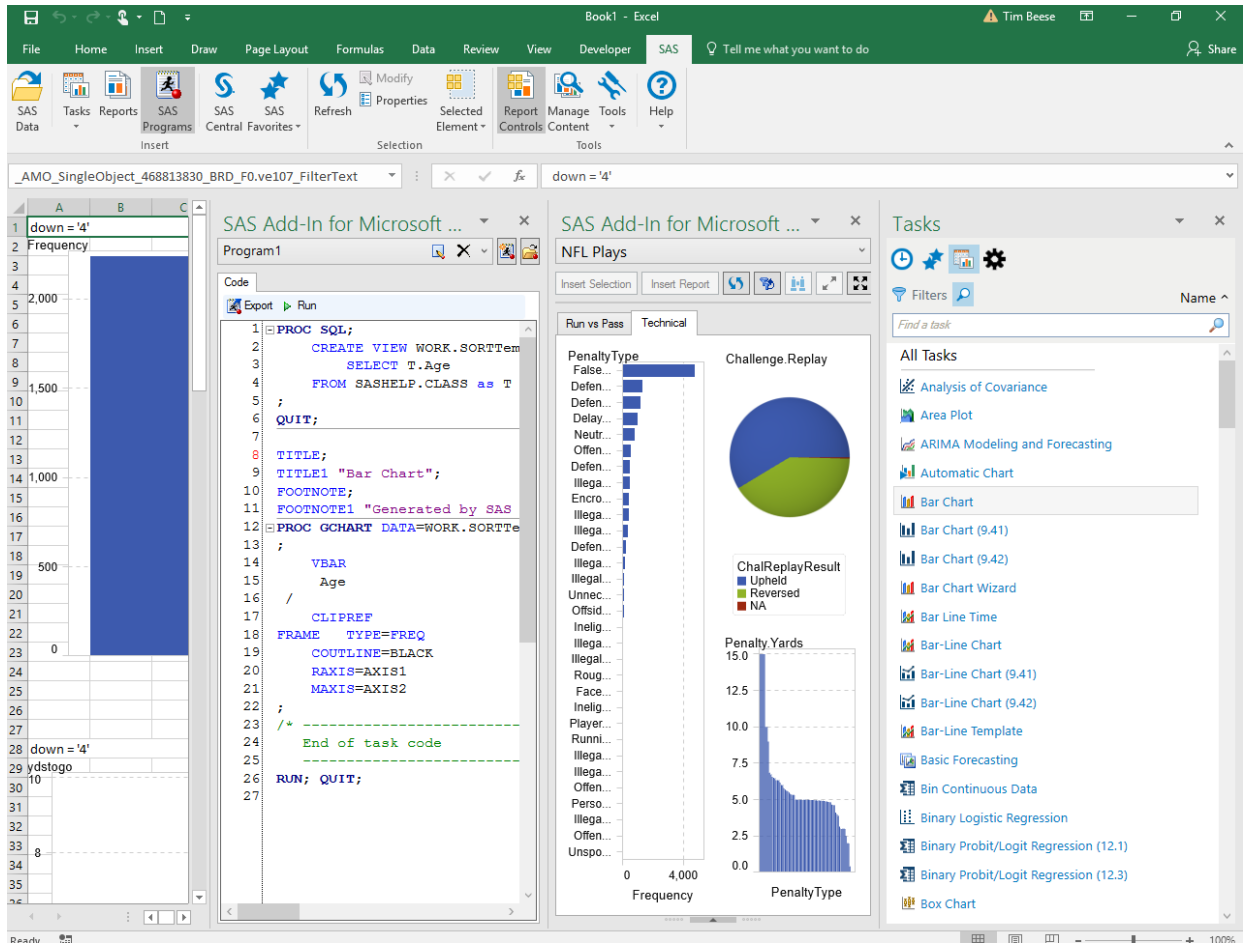
The SAS Add-In for Microsoft Office runs inside of Microsoft Excel, Word, PowerPoint, and Outlook. Version 8 of the SAS add-in supports Microsoft Office 2010, 2013, and 2016. The SAS add-in allows you to open data, run SAS code and stored processes, use tasks to generate SAS code, and display SAS® Visual Analytics reports. The results of SAS content are displayed natively within your Office document, allowing you to work with your SAS results directly within Microsoft Office.

### WHY SHOULD WE REORGANIZE?

Anyone who's worked in an office understands that when something new comes in, you must find a place for it. The way that you organize things might make sense at first, but as more and more items are introduced, it becomes obvious that you should take a step back and redesign things.

The same is true for software. In the SAS Add-In for Microsoft Office version 5, we introduced a Task Browser. This was created in a Microsoft Office custom task pane. In version 6, we introduced the Report Controls panel. This was another custom task pane. Since there wasn't a lot of overlap between tasks and SAS Visual Analytics reports, they were kept separate. In version 7, we introduced the Programs panel in yet another custom task pane. All three of these panes served very different

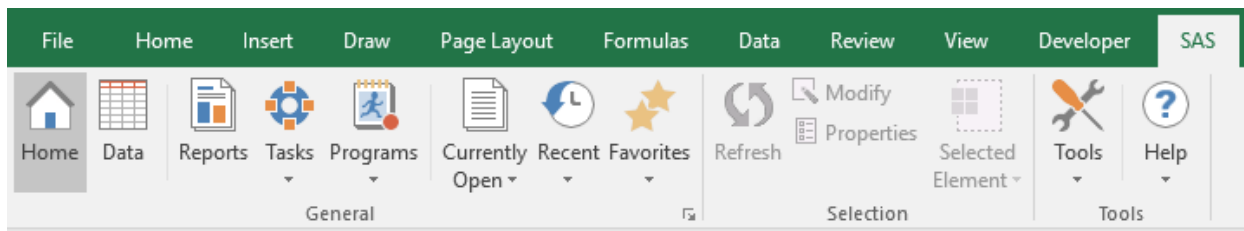
purposes, and each displayed quite nicely in their own panel. However, if you tried to use all three at once, the experience left much to be desired. Display 1 shows the mess you could get into with too many task panes open at once.



Display 1. Too Many Task Panes

## CHANGES TO THE RIBBON

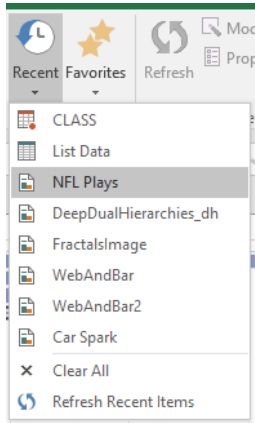
The **SAS** tab on the Microsoft Office ribbon is the main interface for how users interact with the SAS Add-In for Microsoft Office. Display 2 shows the changes in version 8 to make the ribbon more convenient and efficient for the Office user.



Display 2. The SAS Ribbon

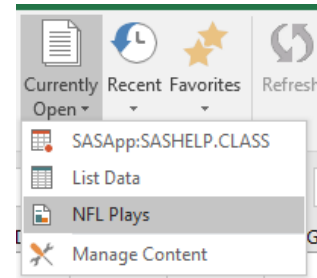
A new **Home** button is now the first button on the ribbon. Click **Home** to open the new SAS panel. The **Home** button can also be used to hide the SAS panel if you want more space to work on your document. There's much more to come on The SAS Panel later in the paper. There are several other buttons that are new or improved this release.

The **Programs** button on the ribbon used to simply toggle the Programs panel on or off. Now, it is a menu. From the menu, you can open the **Programs** tab in the SAS panel or directly jump to a program that is currently open in the **Programs** tab. You can also choose to add a new program or import an existing program.



**Display 4. Recent Items**

The **Currently Open** menu is new to the ribbon. It lists all the content that is currently open within the active Office document. Selecting an item from this menu finds and activates the content in the Office document (if the content has been inserted into the document). It also activates the **Results** tab, displaying the content you selected. At the bottom of this menu is the **Manage Content** option. When you select this option, the Manage Content window appears. From this window, you can refresh items in a specific order, see how items are related to each other, and send content to other applications. Display 3 shows the **Currently Open** menu on the Microsoft Office ribbon.



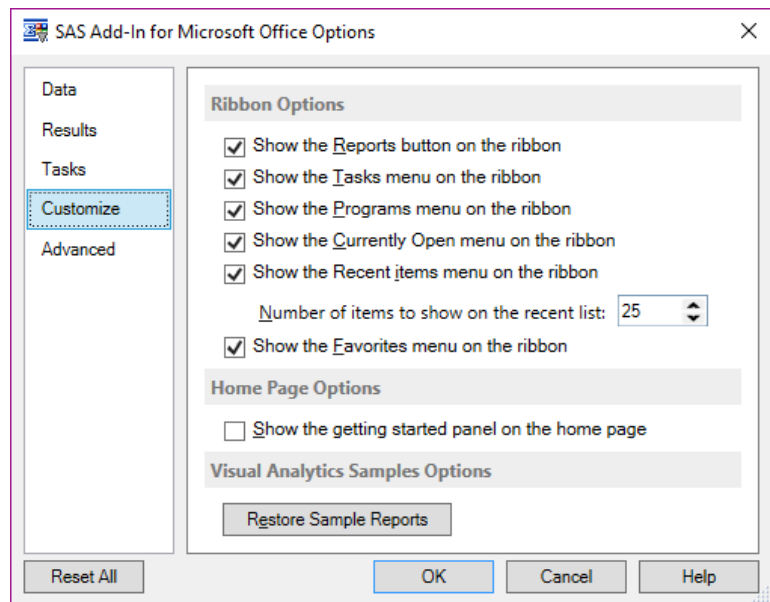
**Display 3. Currently Open items**

The **Recent** menu is also new and shows a list of all the items that you have recently accessed. This menu is a very easy way to open reports, tasks, or data that you frequently work with. At the bottom of the **Recent** menu are options for you to clear all your recent items or to refresh the list of recent items. Display 4 shows the **Recent** menu on the Microsoft Office ribbon.

## CUSTOMIZING THE RIBBON

Not everyone works the same way, and some users might want to customize which buttons are displayed on the ribbon. There is a new page in the SAS Add-In for Microsoft Office Options dialog box that allows you to customize your SAS ribbon. From the **SAS** tab, click **Tools** and then select **Options**. When the Options dialog box appears, select **Customize**. Display 5 shows the Customize page of the SAS Add-In for Microsoft Office Options dialog box.

From this page, you can choose which buttons you want to show on the ribbon. You can show or hide the following items: Reports, Tasks, Programs, Currently Open, Recent, and Favorites. You can choose the number of items to list on the **Recent** menu.



**Display 5. Customizing the Ribbon**

You can adjust other settings here as well. If you've closed the getting started panel on the **Home** tab in the SAS panel, you can restore that. Also, if you've removed your connection to the SAS sample server, or removed the default sample reports that are shown in the **Home** tab, you can reset those settings here.

## THE SAS PANEL

The SAS panel is where most of the reorganization work has been done for version 8 of the SAS Add-In for Microsoft Office. It is one custom task pane where all the functionality for the previous panels can be accessed, as well as adding several new features. The SAS panel can be accessed by selecting the **Home** button, browsing for tasks, working with programs, or displaying SAS results from the **Recent** or **Favorites** menus.

The SAS panel consists of several different tabs: **Home**, **Reports**, **Tasks**, **Results**, **Programs**, and **Search**. Each tab has a similar look and feel, so no matter which tab you're on, you'll feel right at home. Let's take a closer look at each tab and what it does.

## THE HOME TAB

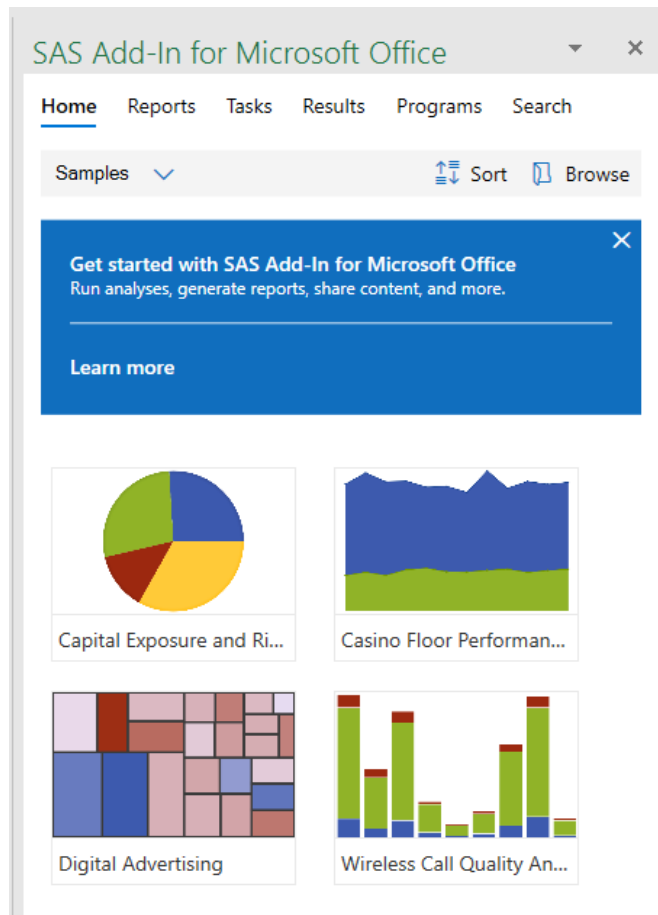
The first thing you'll notice on the **Home** tab is a large blue box labelled, "Get started with SAS Add-In for Microsoft Office". This box includes a link where you can learn more about the SAS add-in. This link takes you to a webpage where there is additional documentation and samples for using the SAS add-in. Once you've done this, close the blue box, and it will be hidden the next time you view the **Home** tab. You can always restore this getting started information by using an option in the Options dialog box. (For more information, see the "Customizing the Ribbon" topic.)

The **Home** tab allows quick access to your SAS content. The four different pages on the **Home** tab show your SAS samples, any currently open documents, your favorites, and your recently accessed content.

## SAMPLES

The first time that you run version 8 of the SAS Add-In for Microsoft Office, you'll come to the Samples page. The SAS add-in connects to the SAS sample server, which enables you to open reports from SAS Visual Analytics. The Samples page shows large thumbnails previewing the content of each report. You simply click on the thumbnail to download and open the report on the **Results** tab. (More details on The **Results** Tab later.)

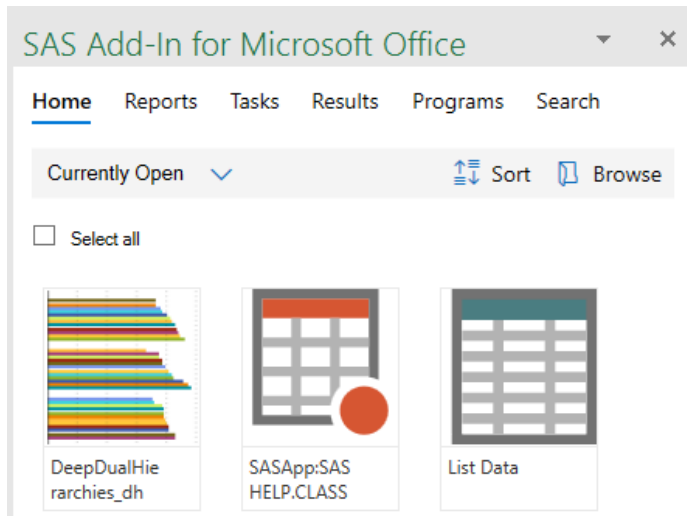
By default, four reports are shown on your Samples page. However, when browsing the sample server, you can add additional sample reports, and those reports will display here as well. To remove a sample from this view, select **Remove from Samples** from the context menu of any sample report. Display 6 shows the Samples page of the **Home** tab.



Display 6. The Samples Page

## CURRENTLY OPEN

The Currently Open page shows you all the SAS content (data sets, tasks, program, stored processes, and reports) that you currently have open within the active Microsoft Office document. From this page, you can easily access your content. When you select an item, any corresponding results in the document are highlighted, and the content on the **Results** tab is also activated. You can also refresh your content or remove it using the context menu for each item.



Display 7. The Currently Open Page

When you hover over any item, a star appears in the bottom-right corner. If the star is filled, the content is one of your favorites. If the star is empty, it is not a favorite. Clicking the star toggles whether that item is a favorite or not. When an item is a favorite, the star is always visible.

To work with multiple items at once, hover over any item with your mouse. A checkbox appears in the top left corner. If you select this checkbox, then the item stays selected. You can pick several pieces of content to work with at once. This allows you to simultaneously refresh multiple items, or remove several items from your Office document. Display 7 shows the Currently Open page of the **Home** tab.

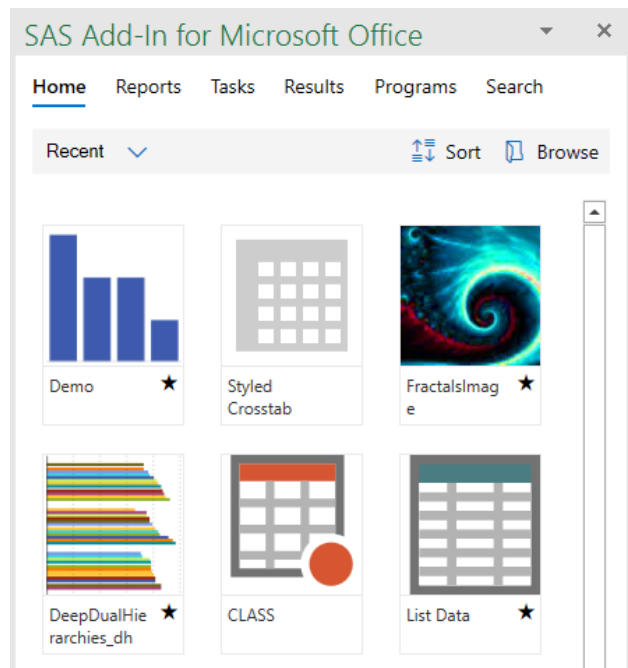
## RECENT

Any SAS content that you open with the SAS add-in is added to the recent list. The Recent page allows you to open your recent content again without having to search for it. The content is simply a click away.

Clicking an item on the Recent page opens and displays the results on the **Results** tab.

In SAS Visual Analytics 8, the recent items are stored on the server. Thus, any reports that you access or run from another application accessing SAS Visual Analytics 8 are displayed in the recent list in the SAS Add-In for Microsoft Office. If you want to remove something from your Recent page, you can choose **Remove from Recent** from the context menu.

Since the SAS Add-In for Microsoft Office can have multiple connections open at any time, the Recent page contains recent items from each SAS Visual Analytics connection, as well as each recently accessed item from your metadata connection. These recent items are combined into one list, allowing you to see all the content that you've worked with, no matter what type of content it is. Display 8 shows the Recent page of the **Home** tab.



Display 8. The Recent Page

## FAVORITES

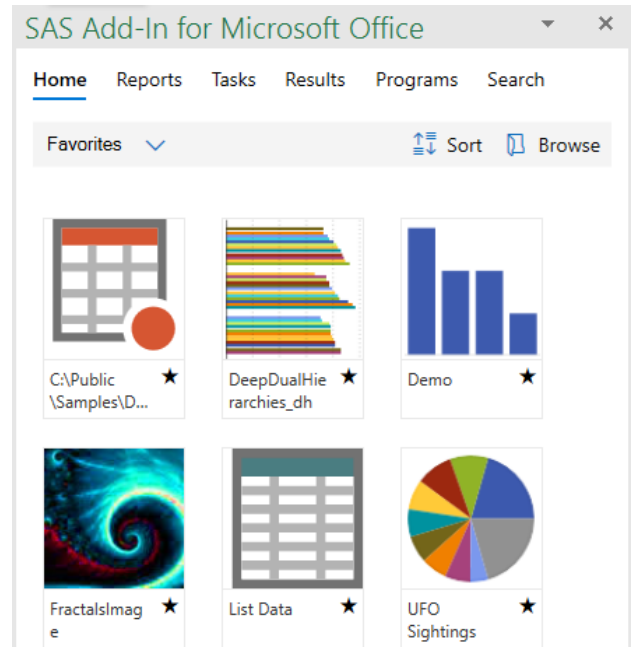
Content that you work with frequently could be marked as a favorite. Favorites are available from both the ribbon and your Favorites page, making it easy to quickly access the content. If you make a SAS Visual Analytics report a favorite, this setting is stored on the server, and it shows up in your favorites list when using SAS Visual Analytics on the web.

The Favorites page on the **Home** tab shows all your favorites in one list. The list is alphabetized by default, matching the favorites list that is available from the **SAS** tab in the ribbon. Clicking an item from your Favorites page opens that item and displays the results on the **Results** tab.

In version 8 of the SAS Add-In for Microsoft Office, favorites are getting simpler. Instead of treating your favorites like a file system, items are simply defined as either being a favorite or not.

Whenever a favorite item is displayed within the SAS panel, you see a star in the bottom right corner. Most items can be added as a favorite from anywhere within the SAS panel. Simply click the empty star that appears when you hover the mouse over the item.

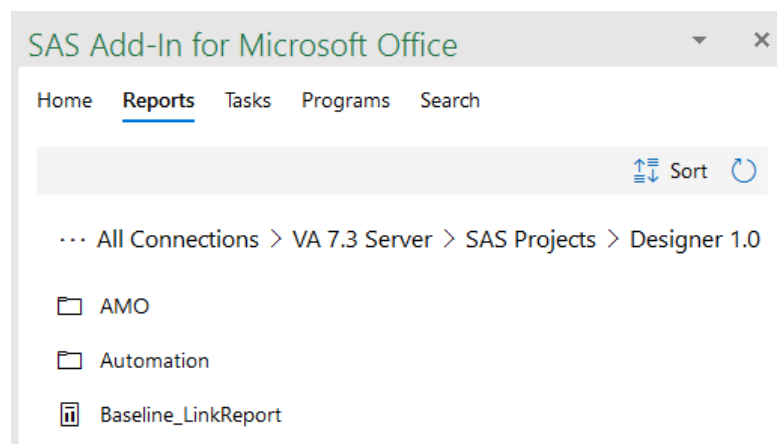
If you no longer wish for an item to be a favorite, remove it by clicking the filled star in the bottom right corner. The item is removed from the favorites list and taken off this page. Display 9 shows the Favorites page in the **Home** tab.



Display 9. The Favorites Page

## THE REPORTS TAB

In the past, if you wanted to browse for a report, you would click the **Reports** button in the ribbon and navigate through a folder structure to find the report that you wanted. In version 8 of the SAS add-in, you can do this from the **Reports** tab in the SAS panel. Display 10 shows the **Reports** tab.



Display 10. The Reports Tab

doesn't fit on your page, there is an overflow button at the beginning of the breadcrumb showing a menu, with a separate entry for each step. Clicking an item in this menu takes you to the location that you selected.

The **Reports** tab allows you to navigate folders on your metadata connection, as well as any of your SAS Visual Analytics profiles. The experience is much more like a web interface, single-clicking on an item to drill into the folder or open the report. Any favorite item is indicated by a star. Items can be added or removed from favorites by clicking the star.

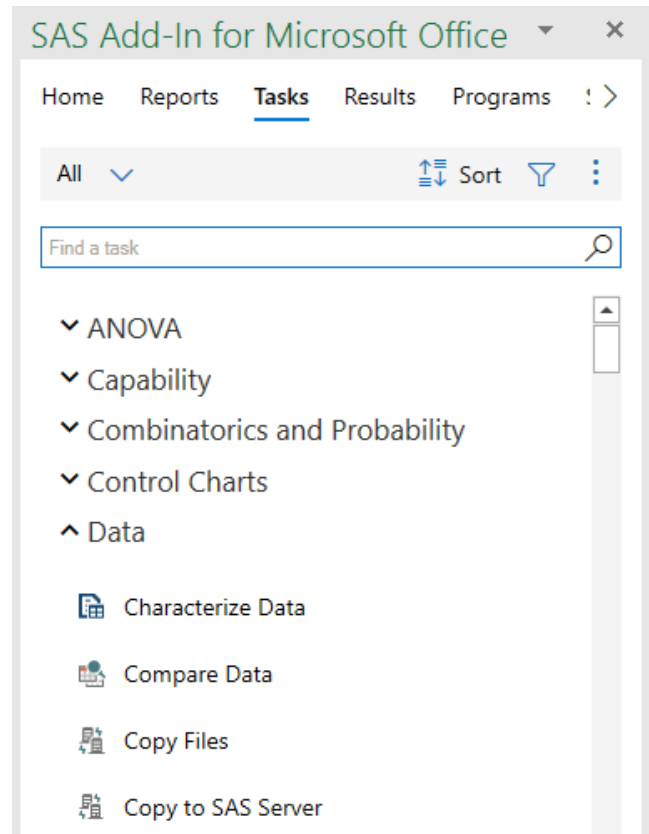
The **Reports** tab features a breadcrumb trail that tracks your progress as you navigate through the folders. At any point, you can click a folder in your breadcrumb trail to go back to that location. If you've drilled in far enough that the entire path

## THE TASKS TAB

The SAS Add-In for Microsoft Office has had a point-and-click interface for browsing through the SAS tasks for several releases. In version 8, tasks have been integrated with the SAS panel as well. From the **Tasks** tab, you can display all the tasks, any tasks that you have recently run, or your favorite tasks.

The tasks can be filtered by their category, type, or SAS procedure. This way if you know something about the task that you want to run, you can easily narrow your search.

New to version 8 of the SAS Add-In for Microsoft Office is the ability to sort the tasks by category. This allows you to see all the tasks in the main view, but have them put into the same groups that can be enabled or disabled using a filter. These categories match the categories that are on the **Tasks** menu on the ribbon. Display 11 shows the **Tasks** tab.



Display 11. The Tasks Tab

## THE RESULTS TAB

The **Results** tab should be familiar to existing users of the SAS add-in. In previous releases, only SAS Visual Analytics reports were opened into a Report Controls panel. This is where you would interact with the report, such as selecting prompts, expanding or collapsing a crosstab, or drilling down into elements. Once the report was ready, you could insert a single element or the entire report into your Office document.

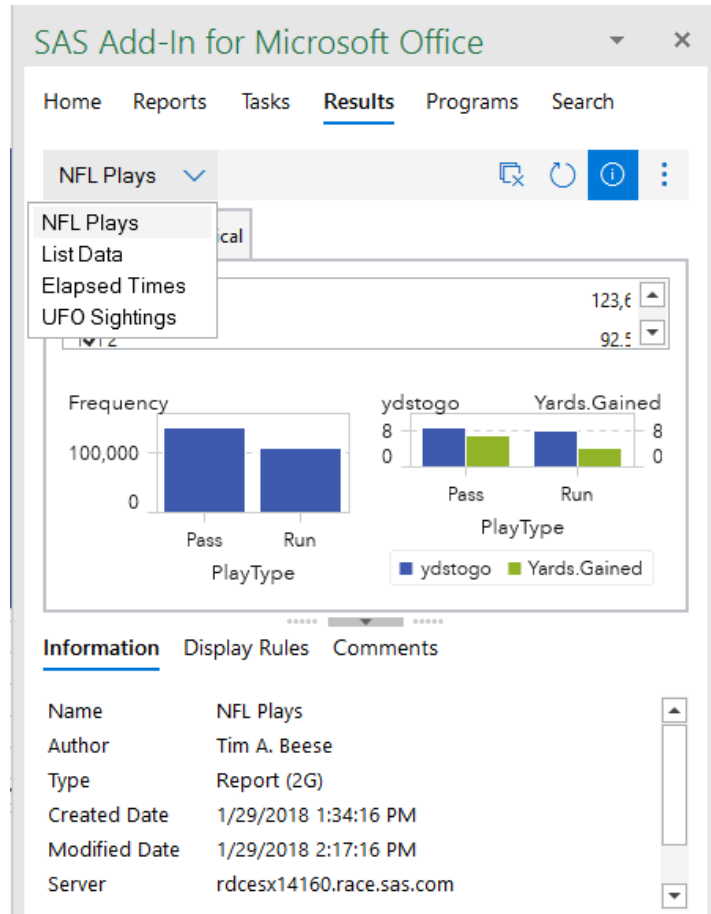
Version 8 of the SAS add-in creates a similar experience for other types of results as well. Now stored processes, tasks, and SAS® Web Report Studio reports can be opened into the SAS panel prior to being inserted into the Office document. Results in the SAS Report format are opened in the **Results** tab, where you can select the elements to insert into the document. Once inserted, these elements can be removed or refreshed. HTML or CSV results are also opened into the **Results** tab. However, you cannot select individual elements with these formats. You can choose to insert the entire report into the document or remove it.

By displaying the results in the **Results** tab before inserting them into the document, you can view your results without modifying your Office document. This allows you to interact with the report, or modify your task or stored process to get the results just right before inserting them into the document. Once they are in your document, any time the results change from a refresh or interaction, the associated elements that are in the document are automatically updated. Other features, such as **Export to PDF**, **Send to Email**, **Reset Report**, and **View on Web** are available in an overflow menu for certain result formats. These are easier to access and no longer require that content be first inserted into the Office document.

When SAS Visual Analytics reports are displayed in the **Results** tab, selecting an element displays a set of contextual buttons in the top right corner of the element itself. These buttons enable you to insert or

remove an element from the document, find the element in the document, or maximize the element. By placing the actions with the element, it is more efficient to select an element and immediately choose what to do with it.

In the **Results** tab, there is a toggle button that turns on or off an informational panel at the bottom of the **Results** tab. This panel has information about the result, such as the name, author, location, and time when the report was created. For SAS Visual Analytics reports, there may also be a **Display Rules** tab that describes the conditional formatting on your report. There will also be a **Comments** tab where you can read and add comments for SAS Visual Analytics reports. Display 12 shows the **Results** tab.

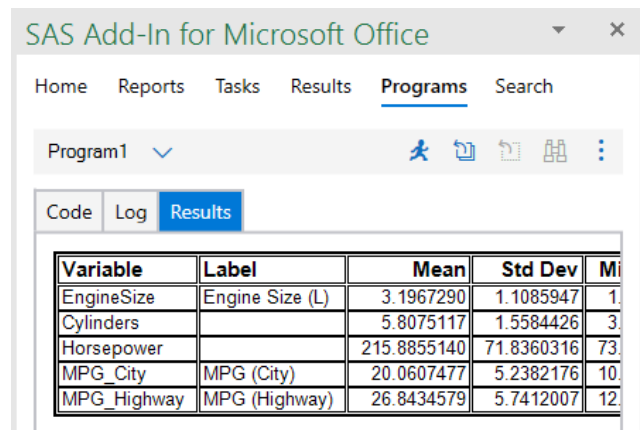


Display 12. The Results Tab

## THE PROGRAMS TAB

The **Programs** tab has been enhanced as well. In version 7 of the SAS add-in, you could write SAS code, submit it, and see the log, while the results were inserted directly to your Office document. In version 8, your SAS programs behave like other SAS content. When you run SAS code, the **Programs** tab shows a **Code**, **Log**, and **Results** tab for each program that you run. The results are displayed on the Results page of the **Programs** tab, and function like results on the **Results** tab. This allows you to view your results in the SAS panel before choosing whether to insert them into the Office document. If SAS Report XML is your output, individual elements can be inserted into the document.

Additionally, the SAS add-in now supports submitting a selection of code. If you have code selected and you submit the code (or press F3), only the selected code is submitted. This new functionality enables you to run parts of your SAS program one at a time. Display 13 shows the **Programs** tab.



Display 13. The Programs Tab



## THE SEARCH TAB

The SAS add-in has also added the ability for you to search your metadata server and your SAS Visual Analytics connections. Enter a search term to search for content. The search results are displayed in a list. The tooltip for each search result gives information such as where the report was found, when it was created, and what type of content it is.

Clicking the item opens the content and displays the results in the **Results** tab. Display 14 shows the **Search** tab.



**Display 14. The Search Tab**

## CONCLUSION

As with any remodeling project, the goal is that when the work is done, the space is more comfortable, and your work is more efficient. These changes to the SAS Add-In for Microsoft Office achieve this goal.

Whatever you are trying to do, browse reports, view your favorites, look at results, write a program, or search for a task, they all use the same space. Navigating through them is very easy, since you don't have to go somewhere different each time.

All the panels have a consistent look and feel, so interacting with your results has a familiar experience to writing a SAS program or browsing reports on your server.

With all the content in one place and all your results displaying in the **Results** tab, your work should become more efficient.

## CONTACT INFORMATION

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