A New Outlook into Your Business

Anand Chitale and Mike Barnhart, SAS Institute Inc., Cary, NC

ABSTRACT

Business users rely on e-mail for communication and collaborative decision making. Have you ever wondered if you could use your Microsoft Outlook environment beyond a simple communication tool and get added value that keeps you more informed about your business?

The integration of SAS® into Microsoft Outlook provides a new outlook into your business. This integration of SAS® Business Intelligence and Microsoft Outlook increases informed decision making by giving business users intuitive access to reports, stored processes, and dashboards. Business users obtain contextual information from SAS Business Intelligence while performing daily tasks in Microsoft Outlook.

This paper highlights the key capabilities provided by seamless integration of SAS with Microsoft Outlook and the application of these capabilities available with SAS® Add-In for Microsoft Office.

INTRODUCTION

Most users in an organization, from executives to managers to analysts, likely use Microsoft Outlook. According to a Forrester Research study, e-mail applications are the first application most users open at the beginning of their day; they are the desktop applications that stays open and in use for the longest periods. As the leading e-mail client, Microsoft Outlook is an interface most users are already very familiar with. The SAS Add-In for Microsoft Office has already been bringing the power of SAS to Microsoft Excel, Word, and PowerPoint. Now, the SAS Add-In for Microsoft Office introduces new Microsoft Outlook (2007 and higher) integration capabilities that enable better decision-making, increased productivity, and decreased costs by taking full advantage of SAS Enterprise Business Intelligence through the Microsoft Outlook environment. This integration of SAS Business Intelligence and Microsoft Outlook increases informed decision-making by giving users intuitive access to reports, stored processes, and dashboards, all within an interface that they are familiar with and use for most of their day.

THE SAS ADD-IN FOR MICROSOFT OFFICE

The SAS Add-In for Microsoft Office enables business users to transparently use the power of SAS for reporting and analytics. Users can access data and reports directly from Microsoft Office through integrated menus and toolbars. The SAS Add-In for Microsoft Office revolutionizes the world of business intelligence by providing easy access to SAS software's broad and deep set of analytic, reporting, and data access functionality in key Microsoft Office applications (Microsoft Word, Microsoft Excel, Microsoft PowerPoint, and Microsoft Outlook). The SAS Add-In for Microsoft Office is designed for business users, analysts, and decision makers who want to view, analyze, and share business intelligence directly from Microsoft Office.

The release of the SAS Add-In 5.1 for Microsoft Office continues to bring the power of SAS business analytics to popular Microsoft applications and further enhances the integration with Microsoft Outlook. In addition, the SAS add-in that is available in Excel, Word, and PowerPoint has been enhanced with an improved user interface, new additional tasks, and improved integration with SAS® Enterprise Guide® and SAS® Web Report Studio. This paper focuses on the capabilities within Outlook. For more details about enhanced capabilities in Excel, Word and PowerPoint, please refer to some of referenced papers or contact your SAS representative.

INTEGRATION WITH MICROSOFT OUTLOOK

Like all of the add-ins in the SAS Add-In for Microsoft Office, the Outlook add-in integrates with a very familiar interface using the same types of behaviors expected in the application. Reports, stored processes, and dashboards are accessible from folders, similar to e-mail, organized under a special folder called SAS Central.

In the release of SAS Add-In 4.3 for Microsoft Office for SAS 9.2, business users can access SAS reports directly in Microsoft Outlook. Instead of having to open a new application, users are able to check their reports whenever they check e-mails. As a result, users are empowered with ready access to key information toget answers to their questions via existing reports without leaving Outlook.

With the release of SAS 9.3, the SAS Add-In 5.1 for Microsoft Office has further enhanced the integration with Microsoft Outlook versions 2007 and 2010, bringing more interactions with reports and the ability to view and interact with dashboards.

A New Outlook into your Business with SAS® Add-In for Microsoft Office

INTERACTIVITY WITH REPORTS INSIDE OUTLOOK

The SAS Add-In for Microsoft Office adds to the Outlook folder structure a **SAS Central** folder (the default folder name can be customized) where the user can access SAS Web Report Studio reports and SAS stored processes. Under the SAS Central folder, users can view the metadata folders and the reports that are accessible to them.

Figure 1 shows the **SAS Central** folder in the **Mail Folders** section of Outlook. Content for the selected SAS report appears in the preview pane. Preview pane options enable the user to interact with the report.
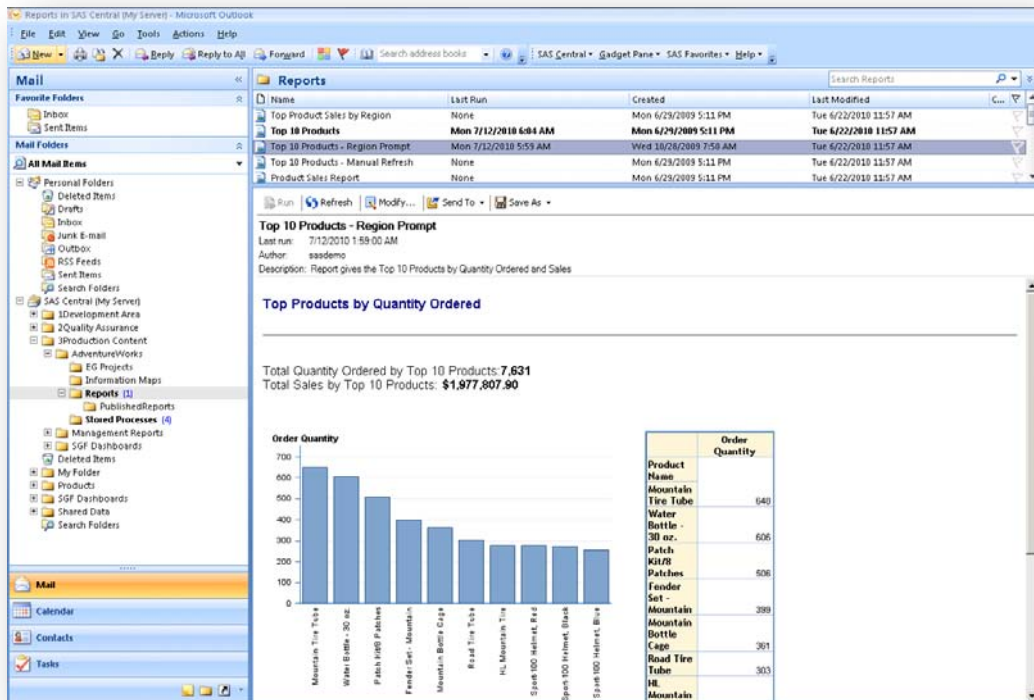

Figure 1: Viewing a SAS Report in the Preview Pane

When the user selects a report, a query is sent to the SAS server for processing, and the results are sent directly back to the Outlook client. As a result, the user sees a report with the most up-to-date information, which reduces latency and dependency on IT for updates. Users can add frequently viewed reports to their **Favorites** list, making often-referenced information easy to find and view.

Running SAS reports in Outlook bypasses the Microsoft Exchange Server, as all processing is done on the SAS servers and not impacting Exchange Server performance.

Basic interactions are supported, such as prompting within a report to dynamically filter the content. Users can also take advantage of Outlook capabilities, such as flagging the report for follow-up or e-mailing the report to a colleague. The colleague's authorization to view the content is validated on the SAS metadata server. Alternatively, the capabilities from the SAS add-in enable users to send add-in output directly to another Microsoft Office application, such as PowerPoint, for inclusion in a presentation.

Collaborative Decision Making: The interactivity with SAS reports is not limited to viewing, running and sharing the reports, but also includes collaboration capabilities that allow users to add comments to reports, view existing comments, and have a discussion with other online viewers in real-time.

Figure 2 shows an e-mail that shows comments in the Comments pane at the bottom of the report. The example shows a few existing comments where user comments are shown for different discussion topics associated with the same report.

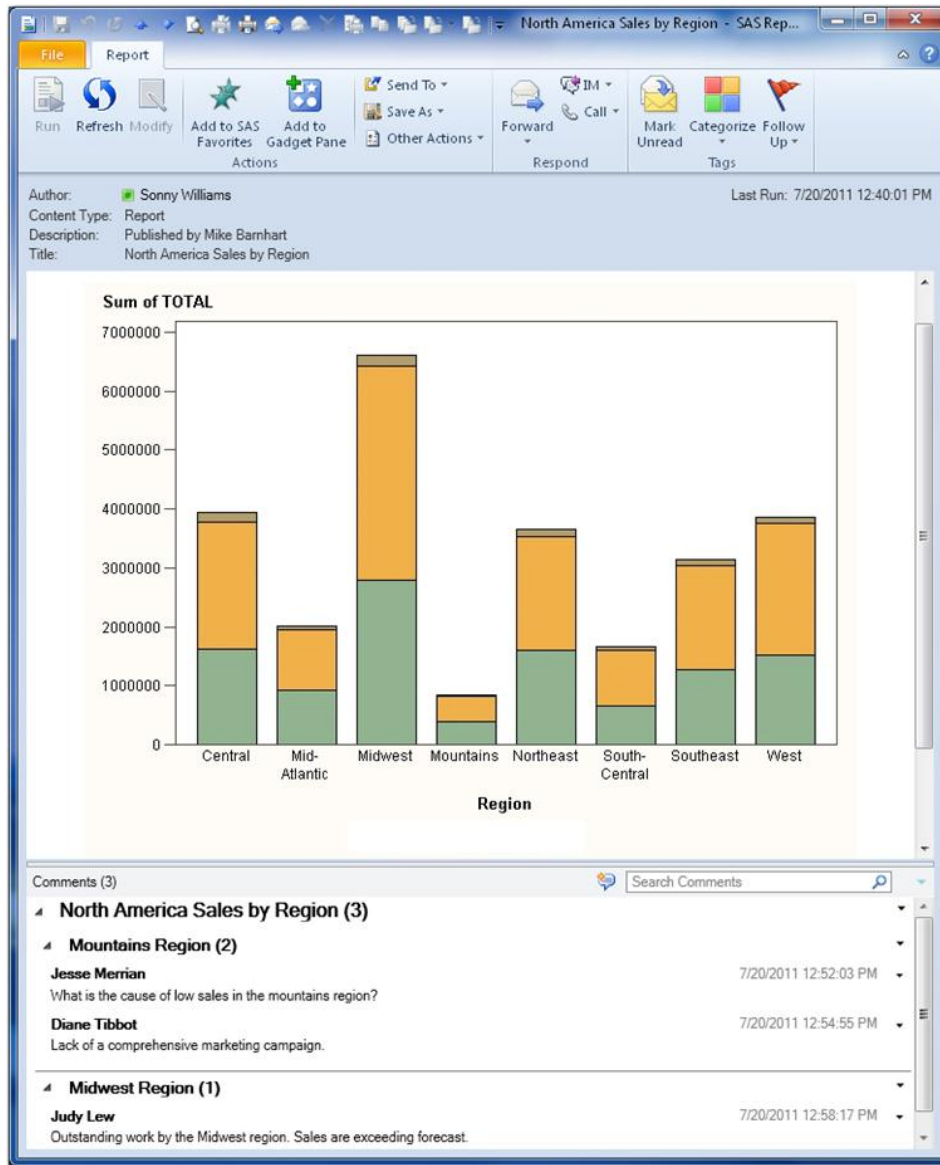**A New Outlook into your Business with SAS® Add-In for Microsoft Office**

Figure 2: Viewing a SAS Report with Report Comments

With SAS Add-In 5.1 for Microsoft Office, users can view the existing comments associated with SAS Web Report Studio reports. Users can then reply to these existing comments or create new comments and generate a discussion thread.

The SAS add-in now also leverages the integration with Microsoft Office Communicator, providing a real-time media for online users to share and discuss their thoughts with each other.

Figure 3a shows the online status of the report author. The interface provides a menu which can be used to start a Microsoft Office Communicator session with the online user.

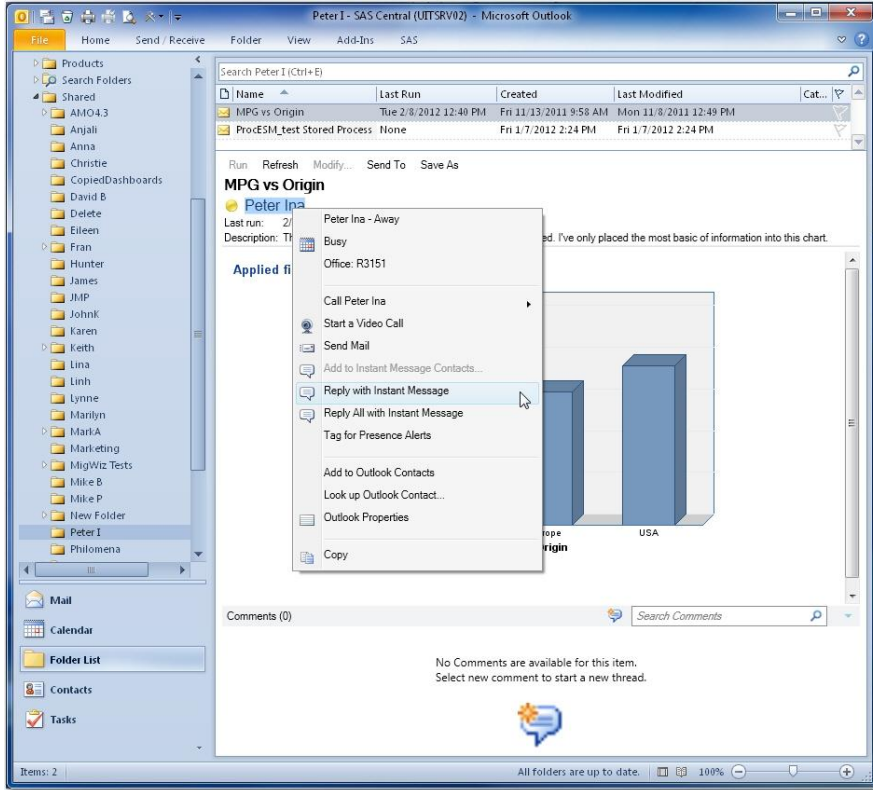A New Outlook into your Business with SAS® Add-In for Microsoft Office

Figure 3a: Online Status of the Report Author with the Integrated Communicator Menu

Figure 3b show the Office Communicator dialog between the report author and the report viewer.
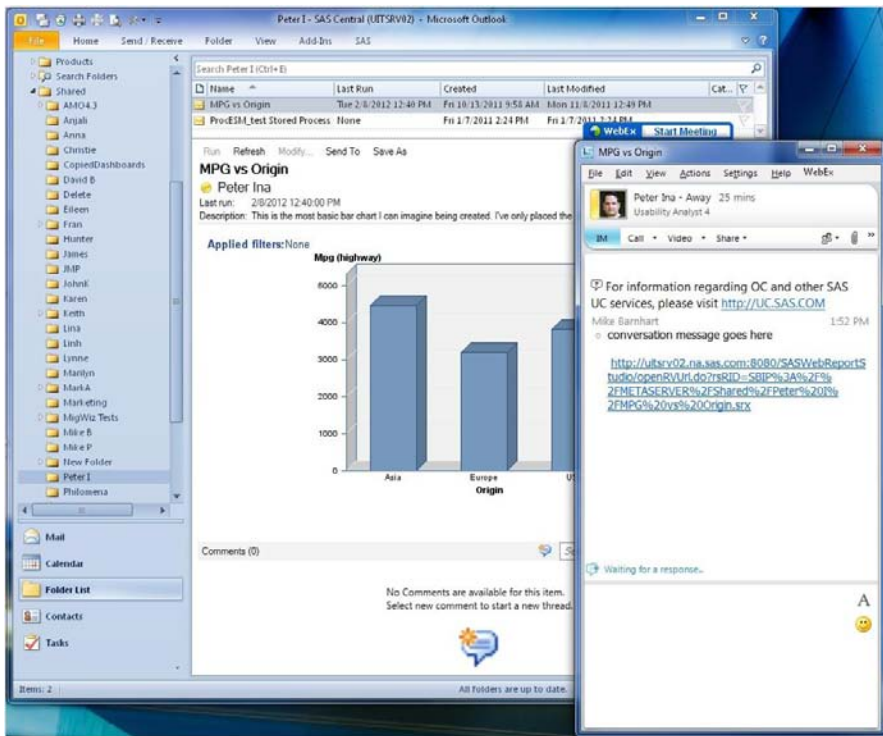

Figure 3b: Microsoft Communicator window launched from Outlook

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Such great capabilities provide an environment that promotes a collaborative decision making process.

INTERACTIVITY WITH BUSINESS INDICATORS INSIDE OUTLOOK

A quick view of key performance indicators (KPIs) can help users keep on top of the information they need to make fact-based decisions quickly. The SAS Add-In for Microsoft Office brings these KPIs into easy reach via Outlook.

Please note that this capability to view and interact with SAS® BI Dashboard is released as experimental and not all types of dashboards or indicators are supported to view inside Outlook.

The **Gadget Pane** enables users to view thumbnails of reports and KPIs alongside their regular e-mails. Users can add their favorite indicators to the **Gadget Pane** to monitor important KPIs.

Figure 4 shows the Gadget Pane containing several indicators and docked on the right side of the Outlook window.
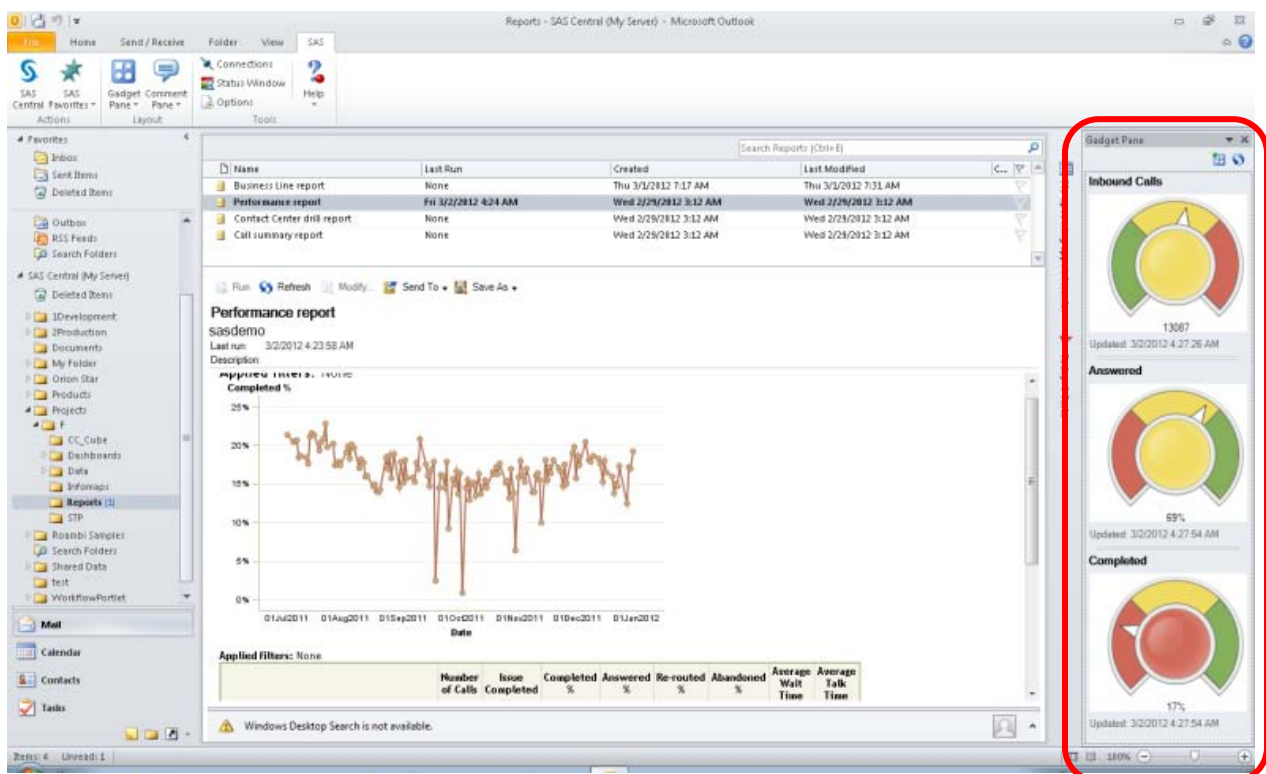

Figure 4a. Gadget Pane in Outlook Showing Key Performance Indicators

The **Gadget Pane** offers thumbnail views of favorite reports and dashboards; from here, users can open these in full view by clicking the image. The **Gadget Pane** can be displayed whenever Outlook is open, so users have immediate access to the information they regularly require. Spending less time searching for information gives them more time to focus on key information, enhancing their productivity.

Users can securely browse through the metadata to find the reports and dashboards of their choice, and control which reports and dashboards are displayed in the **Gadget Pane** in a more refined and simplified way.
To provide a personalized view, the **Gadget Pane** can be kept floating within the Outlook client or it can be docked to the preferred location

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Figure 5 shows the SAS menu **Gadget Pane** option and the new SAS Gadget Manager window.
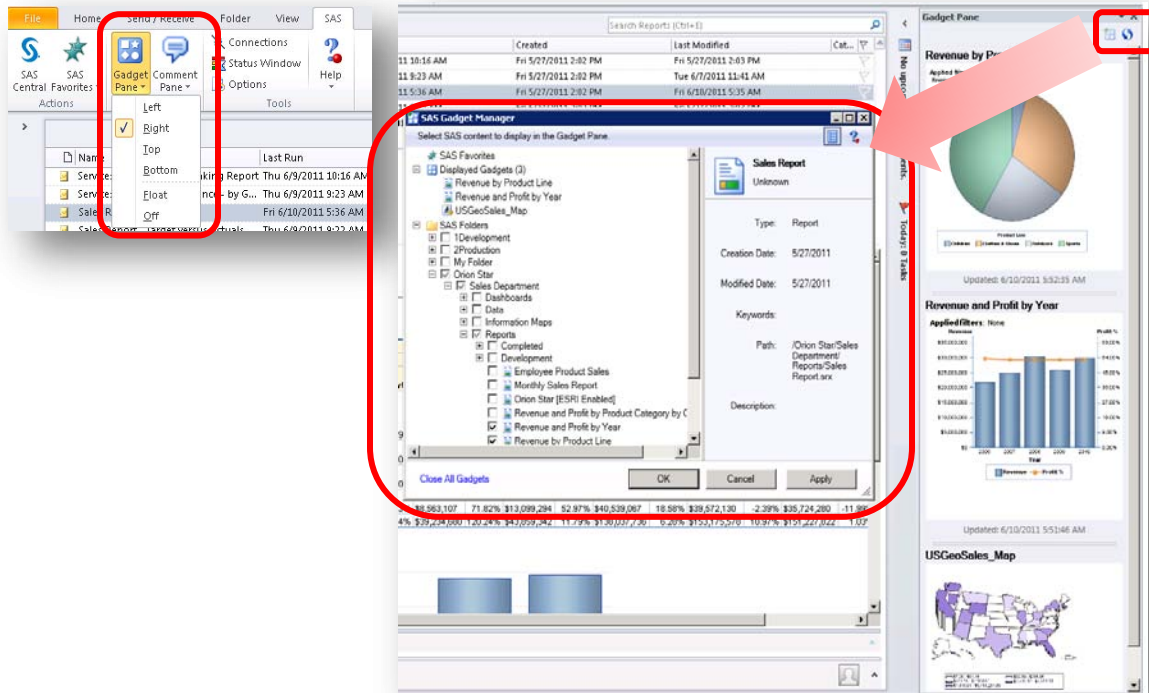

Figure 5. The SAS Menu Gadget Pane Option and the SAS Gadget Manager Windowfor Managing the Content in the Gadget Pane

From an administrative point of view, there is limited impact on the Microsoft Exchange Server. The only Exchange Server impact of including the SAS **Gadget Pane** is for usual Outlook features, such as e-mailing and scheduling a meeting. Because the SAS content inside of Microsoft Outlook is provided from the SAS server, there is no additional overhead on the Microsoft Exchange Server.

Users can also view these interactive dashboards inside the View pane the same way as they viewed the SAS Web Report Studio reports in Outlook. Using the **SAS Central** folder, users can view the dashboards and indicators, and carry out some limited interactions such as data filtering. These dashboards can also be forwarded to other e-mail users as well. When you send a dashboard, the e-mail message contains a link to the dashboard. Clicking on the e-mail link will open SAS BI Dashboard in the browser, enable the user to view the dashboard if they have access to the dashboard, and to view the most updated information in an interactive Web browser.

As mentioned above, all dashboards and indicator types available with SAS BI Dashboard are not available to view or interact inside Outlook. SAS will continue to enhance this capability and bring enhanced integration in future releases.

Figure 6. below shows a typical dashboard inside Outlook with one of the supported indicator types.

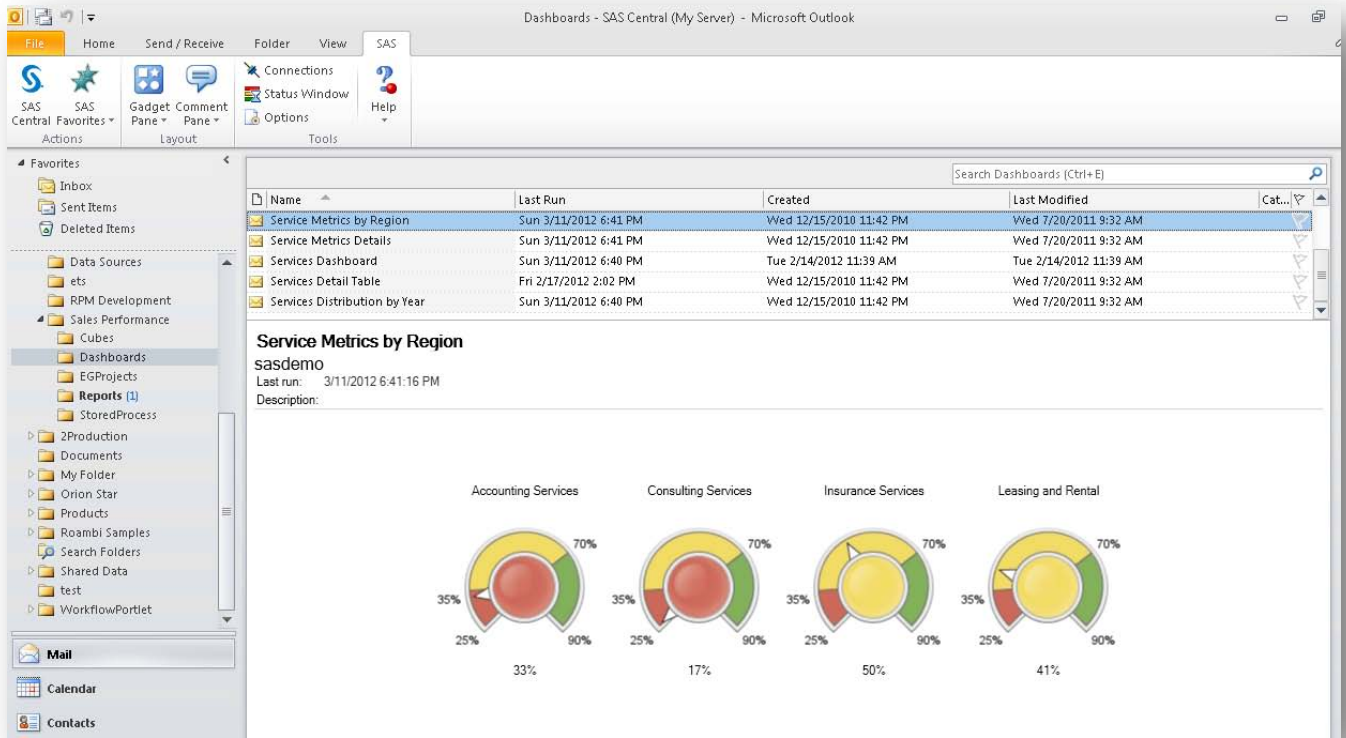A New Outlook into your Business with SAS® Add-In for Microsoft Office

Figure 6. SAS BI Dashboard Viewed in the View Pane of Outlook

MULTI-DIMENSIONAL DATA VIEW INSIDE OUTLOOK

With SAS Add-In 5.1 for Microsoft Office, SAS also brings the capability to interact with business data stored as multidimensional SAS OLAP Cubes, enabling users to have an interactive and visual channel for looking and exploring their business data from within Outlook.

SAS brings this capability as an experimental pre-production capability in the 5.1 release and looks forward to further enhance the same in the future releases.

Using this capability, a user can browse through SAS metadata and open a SAS OLAP cube, which opens Trend Calendar, a highly interactive and visual way to interact with SAS OLAP cubes.

Figure 7 shows a SAS cube opened inside Outlook with a calendar view by months, showing **Sum of Quantity** by products:

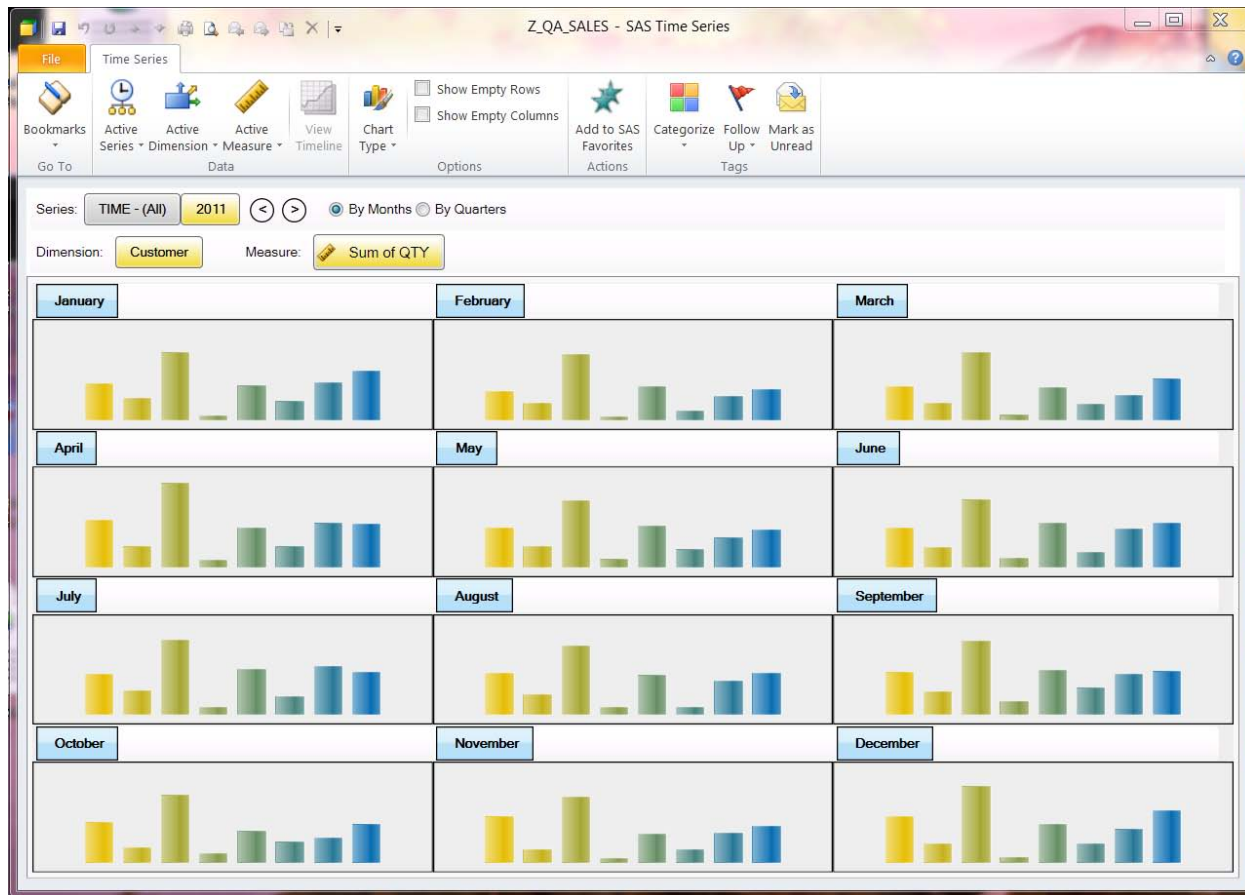A New Outlook into your Business with SAS® Add-In for Microsoft Office

Figure 7. SAS OLAP Cubes Viewed In Microsoft Outlook

Using this interface, user can graphically analyze OLAP data in a time series calendar format and interact to change dimensions and/or measures of analysis; view information in different chart formats including bar charts, line charts, area and pie charts; drill-down or rollup the hierarchies and create bookmarks for various analysis.

CONCLUSION

The SAS Add-In for Microsoft Office provides deep integration with Microsoft Office tools and brings enhanced capabilities for providing the users of Microsoft Office tools with an enriched user experience for data analysis. These capabilities help users to analyze their data easily and in an interactive manner using the power of SAS.

The unique SAS integration with Microsoft Outlook provides a new way of using business intelligence to improve productivity and to expand the reach of business intelligence across the organization.

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CONTACT INFORMATION

Your comments and questions are valued and encouraged. Contact the authors:

Anand Chitale
SAS Campus Drive
SAS Institute Inc.
E-mail: Anand.Chitale@sas.com

Mike Barnhart
SAS Campus Drive
SAS Institute Inc.
E-mail: Mike.Barnhart@sas.com