SAS® Web Analytics 5.3
User's Guide
Third Edition

Contents

About This Book

Audience

SAS Web Analytics is designed for the following users:

- persons, such as SAS Web Analytics analysts, who are responsible for administering, designing, and viewing SAS Web Analytics reports for their organization

- persons who have only view access to the reports

You might be assigned to a specific role that determines which tasks you can perform. This documentation describes all of the tasks that can be performed with SAS Web Analytics. If you are not authorized to perform specific tasks, then your SAS Web Analytics interface will not display those options.

What's New in SAS Web Analytics 5.3

Overview

SAS Web Analytics 5.3 is a major product release with significant architectural changes, and new, more powerful features. It is fully integrated with the SAS 9.2 Enterprise Business Intelligence (EBI) platform. SAS Web Analytics 5.3 provides new and enhanced analytics as well as the flexibility that is provided with SAS Data Integration and SAS Web Report Studio.

New and enhanced features in SAS Web Analytics include the following:

- Customer Intelligence integration

- portal integration

- security enhancements

- new Web 2.0 interface for designing and viewing analytical reports

- improved performance

- advanced data collection

- more powerful and advanced analytics

- full historical warehouse with a more efficient data model

- traffic reports based on SAS Web Report Studio

- enhanced analytical reports

- new Web Page overlay feature

In addition to these changes, new graphics are available, more powerful and advanced analytics have been included, and new KPI goal monitoring and management have been implemented.

The Search Term Referrer traffic report was deleted because the report is no longer available.

Customer Intelligence Integration

SAS Web Analytics is part of the Customer Intelligence suite of solutions and integrates with the SAS Marketing Automation and SAS Digital Marketing products. The integration provides online behavior details to better determine the success of campaigns that are created and executed through Customer Integration products.

This feature of SAS Web Analytics is available only when SAS Marketing Automation 5.3 is licensed and installed in the same SAS 9.2 environment.

Portal Integration

Portal integration provides a single access point into the SAS Web Analytics application and into the pre-built and user-generated SAS Web Report Studio reports.

Security Enhancements

SAS Web Analytics 5.3 provides increased security options. Based on customer roles, different portal tabs are displayed and corresponding capabilities are provided.

New Web 2.0 Interface for Designing and Viewing Analytical Reports

Reports for SAS Web Analytics 5.3 have been completely redone and are based on Web 2.0, and an enhanced user interface (UI) was developed to design and view analytical reports. Both the Funnel and Path reports can be segmented using customer profiles. Profiles that are based on traffic sources are built into the software. For custom profiles, SAS Data Integration Studio is used for creating and managing highly flexible and powerful profiles of site visitors. General reporting, including Traffic reports, Site Metrics, and Visitor reports are now built in SAS Web Report Studio and do not rely on specialized graphics.

Improved Performance

The Extract, Transform, and Load (ETL) flow, which is based on SAS Data Integration Studio, enables jobs to be run in parallel and shows significant performance improvements in Funnel and Path reports. In addition, aggregations have much greater scalability.

Advanced Data Collection

In addition to the log file analysis that is available in the previous version of SAS Web Analytics, the new version uses a page tag solution. With a page tag solution, data is collected using a collection server. Unlike logs, which capture standard actions and are then parsed to analyze relevant data, tags present flexibility as the captured data is determined by the user. The included SAS Data Surveyor for Clickstream Data has new SAS Data Integration Studio jobs and transformations for processing Web and tag logs.

SAS Web Analytics 5.3 is also able to build on the dynamic data collector that is currently being used in the SAS for Customer Experience Analytics Solution.

More Powerful and Advanced Analytics

SAS Web Analytics 5.3 delivers new, exciting, and more powerful advanced analytics, including advanced forecasting and trend analysis:

- Path analysis uses a faster, more detailed, analytical procedure along with the option of using sophisticated sampling.

- Performance Insight and Performance Monitor deliver advanced forecasting, showing confidence limits and providing more information that you can act on over different time periods, such as daily, weekly, or monthly.

- Performance Monitor provides goal management and forecasting that shows whether you are reaching your goal.

- Funnel analysis shows detailed analysis across a multi-staged path, showing data inflow and outflow at each intermediate step.

Full Historical Warehouse with a More Efficient Data Model

A fully documented and open data model is included for all historical data. In the previous version of SAS Web Analytics, the data was summarized into marts, which limited the user's ability to drill further into the data for custom reporting.

New Web Page Overlay Feature

The new Web Page Overlay feature overlays traffic metrics directly on actual Web pages to identify site visitors' behavior on a page. Clicks, unique visitors, and visits are associated with each link. A configurable heat indicator identifies links on a page that have the highest percentage of clicks, unique visitors, or visits. Referring links and destination pages can be dynamically viewed.

Traffic Reports Based on SAS Web Report Studio

The following traffic reports are new:

- The Search Engine Bid Campaigns report displays the results of using AdWords that are located on Yahoo, Google, MSN, and other search engines. These AdWords follow a pay-per-click sponsor system where the placement of the sponsor is ranked by how much the sponsor is willing to pay for a keyword.

- The Search Engine Paid Keyword Performance report contains metrics that are used to determine the effectiveness of a specific campaign and keyword.

- The Organic Goal Page Summary report categorizes visits from search engines by non-paid keyword search terms and by the goal pages that you select. A goal page is a page to which you want to drive traffic.

- The Organic Search Word Effectiveness report contains search terms that are specified by the customer for a time period based on the total number of searches.

- The Organic Search Word Overview report displays a table that shows all goal pages and search terms that are associated with the goal pages to which you want to drive traffic.

- In the second maintenance release for SAS Web Analytics 5.3, the Organic Search Summary report is new. This report includes a total summary of all organic searches, and an organic search summary by search engine.

New and Enhanced Analytical Reports

The following analytical reports are new or enhanced:

- The Performance Monitor report replaces the Dashboard that was available in the previous release of the product. This report is an on-demand display of Web site measurements (metrics) that alert you to changes in business direction. To enable better decision making, the Performance Monitor report includes two traffic light indicators; one for short-term performance and the other for long-term performance. Forecasting and trending capabilities are present when you use the Performance Monitor report. You can set and manage goals that can be tracked through the Performance Monitor. Thumbnail graphs that are populated with data are displayed. You can position your mouse pointer over the graphs to enlarge them. Forecasts for the Performance Monitor report contain confidence bands to identify upper and lower confidence levels.

- The Performance Insight report replaces the Scorecard that was available in the previous release of the product. This report enables you to determine the statistically significant metrics that drive a target key performance indicator (KPI) by using step-wise regression. The response-seeking function enables you to define how much the target KPI needs to improve, and then determine how much each individual driver metric needs to change to achieve the improvement in the KPI. Thumbnail graphs that are populated with data are displayed. You can position your mouse pointer over the graphs to enlarge them. Forecasts for the Performance Insight report contain confidence bands to identify upper and lower confidence levels.

- The Funnel report, which tracks site visitors through a specified progression of pages, has new graphics and now also tracks the inflow and outflow of prospects and non-prospects through the funnel. The report captures the place from which visitors enter the funnel and where visitors go after they exit the funnel. Labels in this report are able to be customized on a per-report basis. The Funnel report can be segmented by using profiles.

- The Path report depicts visitors' site navigation from a particular page. It has a new analysis and presentation for mining the paths that visitors take through a Web site. SAS Web Analytics 5.3 uses expandable and collapsible lists of pages to show the most popular paths. The Path report can be segmented by using profiles. You can generate a Funnel report or a Page Overlay from the Path report.

- The new traffic Heat Map report applies aggregated traffic data to a heat map, which is divided into Designated Market Areas (DMAs). By identifying the IP address of a browser, the heat map enables you to quickly view the geographic areas from which site visitors are accessing the site.

The following types of searches are now supported:

Organic search analysis
: categorizes visits from search engines by non-paid keyword search terms and user-selected goal pages. The following reports are provided:

  - Goal Page Summary

  - Organic Search Word Effectiveness (top search terms)

  - Organic Search Word Overview (goal pages and associated search terms)

Paid search analysis
: provides analysis and reports using metrics to determine the effectiveness of campaigns and keywords. Trend analysis is performed using econometric time series techniques.

Goal pages
: specifies pages for organic or paid searches which result in some value for further analysis.

Part 1

Introduction to SAS Web Analytics

Chapter 1
About SAS Web Analytics

What Is SAS Web Analytics?

SAS Web Analytics provides advanced analytics and visualization in a Web-based reporting framework. This framework helps businesses increase their Web profitability by increasing ROI and decreasing costs. SAS Web Analytics is a graphical reporting tool that enables businesses to better understand their customers by analyzing the origin, path, duration of visit, and destination of each visitor to the business Web site. By understanding their customers, businesses can motivate customers to purchase products and increase the use of Web-based services. SAS Web Analytics enables you to learn who your Web customers are, where they come from, how often they visit your Web site, which Web pages they like, and more. You can use the information from SAS Web Analytics to increase Web site usage and customer retention. You can determine how customers, particularly profitable ones, arrive at your Web site.

SAS Web Analytics turns high volumes of Web data into key metrics that are specific to your business. It integrates online data sources with offline data sources. You can gauge the success of your online operations and refine business strategies as needed. By monitoring key performance indicators (KPIs), you can identify the drivers that influence bottom-line results and gain an accurate picture of how well you are achieving your business objectives at every point in the process.

Advanced analytics provides the basis for flexible reporting. With analytics and interactive visualization tools, you can derive intelligence that will help decision makers understand how to deliver more efficient, effective offline and online marketing campaigns.

Customer Intelligence Integration

SAS Web Analytics is part of the Customer Intelligence suite of solutions and integrates with the SAS Marketing Automation and SAS Digital Marketing products. The integration provides online behavior details to better determine the success of campaigns that are created and executed through Customer Intelligence products. Reporting within SAS Web Analytics can show the end-to-end results of campaigns, including the number of clicks and click-thrus, click-thru rate, bounce rate, average number of pages viewed, goals achieved, and total value. You can analyze the data to further improve the effectiveness of an outbound campaign or a communication. For example, you can create campaign profiles for funnel and path analysis.

The Web analyst has the ability to create goals within the SAS Web Analytics interface and associate a Customer Intelligence response code with a given goal. This association enables you to analyze how Customer Intelligence campaigns are driving traffic to Web sites, or how campaigns are driving actions within Web sites. The Web analyst is also able to perform the following tasks:

- define a goal with a name that contains one or many pages

- select a goal condition, such as a visitor viewing any page in a set of selected pages

- assign a response code from SAS Marketing Automation to the goal

Benefits of Using SAS Web Analytics

SAS Web Analytics provides major benefits to your organization. The analytics and visualization tools help you to perform the following tasks:

- improve customer retention

- focus clearly on key metrics

- provide a better customer experience and an improved bottom line

- generate sophisticated reports on time, every time

- conduct effective, efficient e-marketing campaigns

- improve margins through improved service quality

- measure and forecast the performance of key indicators for Web effectiveness

What Kinds of Reports Can I Design?

Analytical Reports

Analytical reports provide you with analytics, which calculates output data from the data in your Web log or from the SAS Clickstream Data Collector. You access the analytical reports through the SAS Web Analytics graphical user interface (GUI). The following analytical reports are available:

- Performance Monitor

- Performance Insight

- Path Analysis

- Funnel

A Page Overlay feature is also available. This feature displays visitor activity for a specific Web page by using the image of the Web page itself to identify the page features that visitors clicked. It also displays the metrics that are associated with those features.

Traffic Reports

Traffic reports monitor the volume of activity on your Web site. You can design reports that show metrics such as status codes, basic traffic statistics, and visitor frequency. You can conduct organic searches, and search engine bid campaigns. You access these reports through *SAS Web Report Studio*, a business intelligence component of the SAS Intelligence Platform. *SAS Web Report Studio* enables you to view, design, and share Web-based reports. The following types of traffic reports are available in *SAS Web Report Studio*:

Browser and Platforms reports
> provide information about the number of unique visitors to your Web site.

Status Codes reports
> provide information about the frequency of status codes that are returned by a server.

Site Metric reports
> provide information by the hour or by the day of the week.

Visitor reports
> provide information about the frequency of visitors to your Web site.

Page Usage reports
> provide information about entry pages, exit pages, and bounce rate.

Referrer and Search Terms reports
> provide information about referring pages and organic searches.

Search Engine Bid reports
> provides information about search engine bid campaigns and paid keyword performance.

How to Get Help for SAS Web Analytics

You can access Help for SAS Web Analytics in the following ways:

- from the online *SAS Web Analytics User's Guide* (both HTML and PDF format). To access the documentation, select **Help** ⇨ **Contents**, and then select the HTML or PDF version of the *SAS Web Analytics User's Guide*.

- from window Help by selecting **Help** ⇨ **Contents**, or by clicking **Help** on the windows that have this button.

- from the *SAS Web Report Studio User's Guide* for traffic reports.

Accessibility Features of SAS Web Analytics 5.3

About the Accessibility Features

SAS Web Analytics includes accessibility and compatibility features that improve the usability of the product for users with disabilities, with exceptions noted below. These features are related to accessibility standards for electronic information technology that were adopted by the U.S. Government under Section 508 of the U.S. Rehabilitation Act of 1973, as amended.

If you have questions or concerns about the accessibility of SAS products, send e-mail to accessibility@sas.com.

Features That Are Supported with Exceptions

The following SAS Web Analytics features are supported with exceptions:

Feature	Exception
Text equivalent for non-text elements	In most cases, alternative text is provided for images. However, it is missing for the following items: • deleted images on summary tables • report views that contain increase and decrease images to improve target value. • + and – images

Feature	Exception
Color and non-color information	When you use a high contrast theme, some controls are not visible in Internet Explorer and Firefox 3.
	When you use a high contrast theme, the following exceptions exist:
	• You are not able to read text on links, and on **Portal**, **Log Off**, and **Help** buttons on the main window. You are also not able to read text on values in the **Name** column at the detail view of the main window.
	• In the Edit Parameters section of the Page Overlay window, the **Cancel** and **Help** buttons are not readable.
	• In the Page Overlay, the **Select URL** button is not readable.
	• In the **Heat Indicator** field of the Page Overlay, data and heat color are not displayed. You are not able to scroll through the list of colors.
	• You are not able to determine whether the value in the **Type** list is selected.
	• The Edit Search Engine Bid Management Goals window, accessed from the **Admin** tab is unreadable.
	• Dates on the calendar are unreadable.
Information provided by a scripting language and read by Assistive Technology	The following list shows some of the exceptions:
	• You cannot expand and collapse nodes in the tree view while navigating with JAWS.
	• JAWS fails to read the menu.
	• With JAWS, you cannot navigate through some of the controls.
	• JAWS cannot read some function text on the screen.
	• JAWS does not read table controls.
	• JAWS either does not read the labels for controls, or if it does, it reads the labels incorrectly for some of the controls in the Funnel and Path reports.
Electronic forms to be completed online using Assistive Technology	The following is a list of exceptions:
	• Error messages are not exposed to Assistive Technology.
	• JAWS either reads labels incorrectly or does not read labels for some controls.

Feature	Exception
Keyboard functions that can be discerned textually	Exceptions include the following: • No keyboard keys are provided to activate controls such as menu and date picker. • Cell values in the summary tables cannot be activated using keyboard keys. • In some places, you are not able to pick a value by scrolling through the control. • In a few cases, tab order is not optimal.
Focus and focus changes	The following is a list of exceptions: • Focus is not set to some controls during navigations. • Focus does not set to the drop-down menu icon in the Detail List table view. • In the Path report, focus is not set to the correct control when navigating through the report. • In the Page Overlay, setting focus to the URL selection is not available if you use the Tab key. Use the mouse pointer to set the focus. • In the Page Overlay, focus goes out of the dialog box when you tab through the controls.
User-selected contrast and color selections	With some exceptions, the software inherits user settings for color and contrast.
Table details	When you create a Performance Monitor report and view the report, JAWS reads the table details only when they are selected with a mouse pointer.
Alternative text for tables	JAWS is not able to read alternative text for deleting an image in the Add Metrics table. This exception applies to all summary tables. JAWS is not able to read values in the Add Metrics table.
Read text and menu items	JAWS is not able to read the heading label text "Performance Monitor properties." JAWS is not able to read menu items when you select a new report. There is no alternative text available for images.

Feature	Exception
Keyboard keys	The following is a list of exceptions: • When you select a new report, there are no keyboard keys that will make the selection. Use the mouse pointer instead. • There are no alternate keyboard keys to respond to error messages. • In the Add Metrics dialog box, focus is not set to the + and – image icons so that you can move selected items. No alternate keys are available to do this task. • No keyboard keys are available to edit values in the cells of the summary table.
Open dialog boxes	JAWS is not able to open the Web site or interval dialog boxes in the Performance Monitor report.

Features That Are Not Supported

The following SAS Web Analytics features are not supported:

• The software does not provide a method that permits you to skip repetitive navigation links.

• When a timed response is required, the software does not provide a way for you to be alerted and given sufficient time to indicate that more time is required.

Chapter 2
Using SAS Web Analytics to Design and View Analytical Reports

About the SAS Web Analytics Graphical User Interface

You use the SAS Web Analytics graphical user interface (GUI) to design, view, save, and print analytical reports. You can add metrics that create forecast, trend, and goal graphs. You can perform path analyses, and view metrics from a Web page overlay. You can track the path a customer takes to a specific page on a Web site.

The user interface enables you to create folders in which to save the reports that you design. The folders become part of the file hierarchy through which you can navigate to view saved reports.

Log On to SAS Web Analytics

To log on to SAS Web Analytics, you click a link that is provided by your system administrator. Then you enter your user name and password, and click **Log On**. Your password is case sensitive. Your user name might be case sensitive, depending on the operating system that supports SAS Web Analytics.

Your SAS Web Analytics session will time out after 30 minutes of inactivity. Your system administrator can change the default value.

Note: If you are running a Funnel or Path report and you have "report viewer only" permission, you might receive the following error message: `Cannot get server`

login. This means that authentication to the workspace server failed. To correct this error, ensure that your Web site has an account associated with it.

When you log on to SAS Web Analytics, the SAS Portal page appears:

Display 2.1   SAS Portal
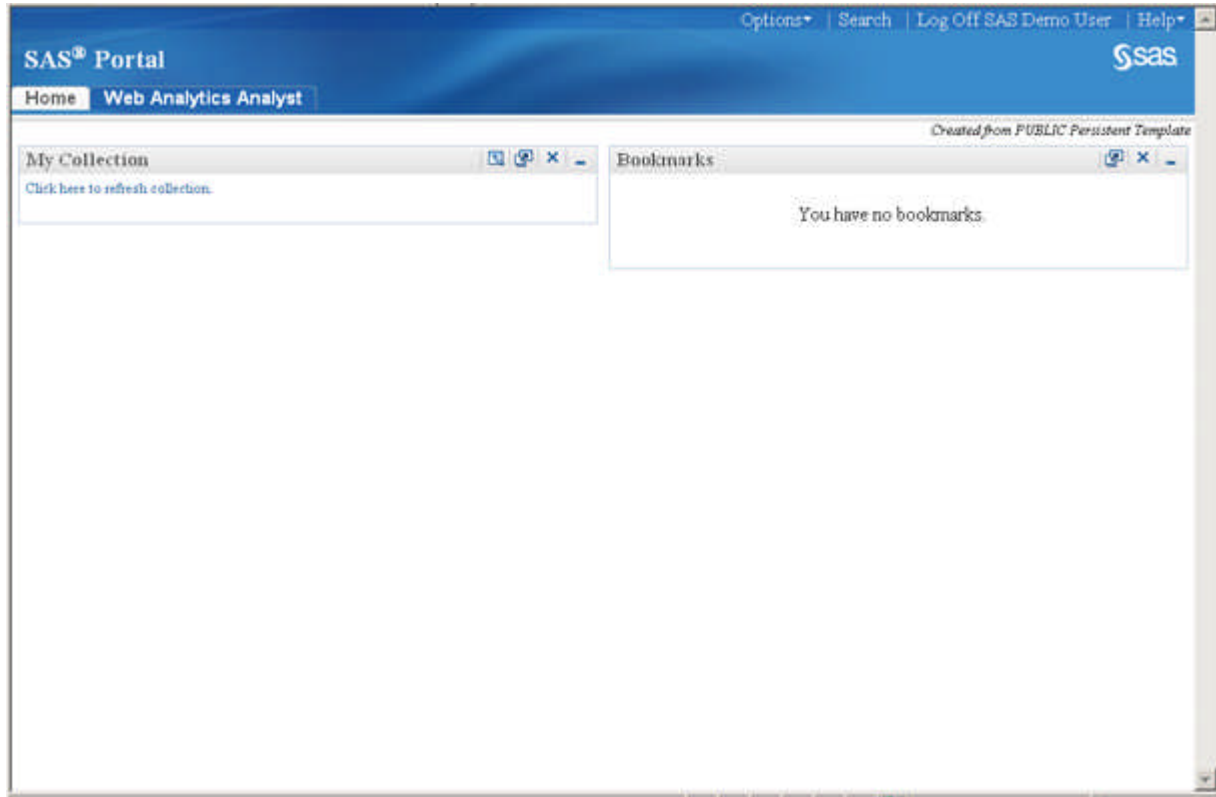
You can configure the portal page based on the responsibilities of each user. In the following example, the SAS Portal has been configured for use by a SAS Web Analytics analyst:

Display 2.2 *SAS Portal: Web Analytics Analyst*
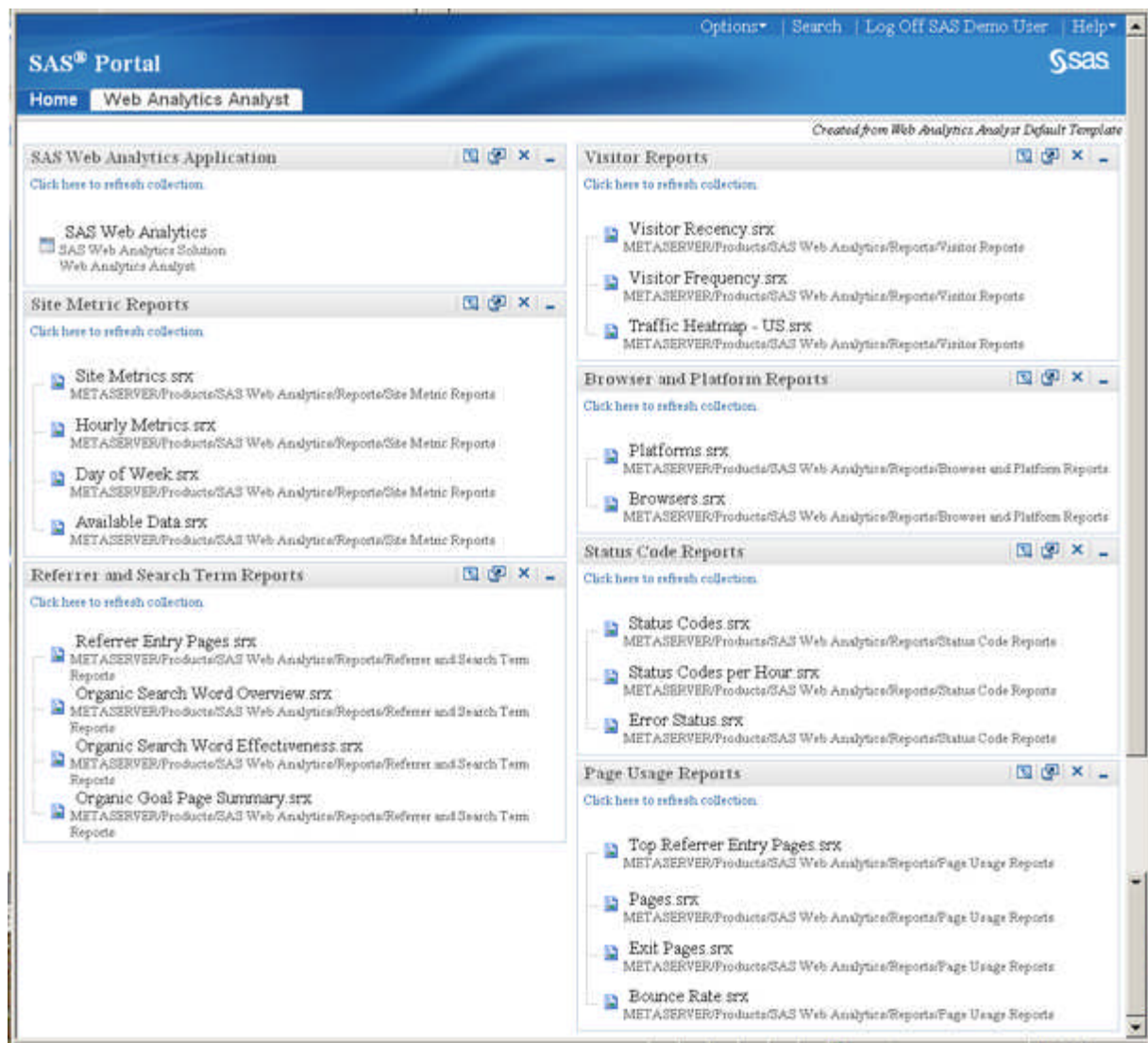
From this portal page, an analyst can create, edit, and configure reports, as well as configure and add reports to the portal page.

The SAS Web Analytics - Reports Main Window

View of the Main Window

When you log on to SAS Web Analytics, the SAS Web Analytics - Reports window appears.

Figure 2.1 *SAS Web Analytics - Reports Main Window*

The following items correspond to the numbered items in the graphical interface that is shown above:
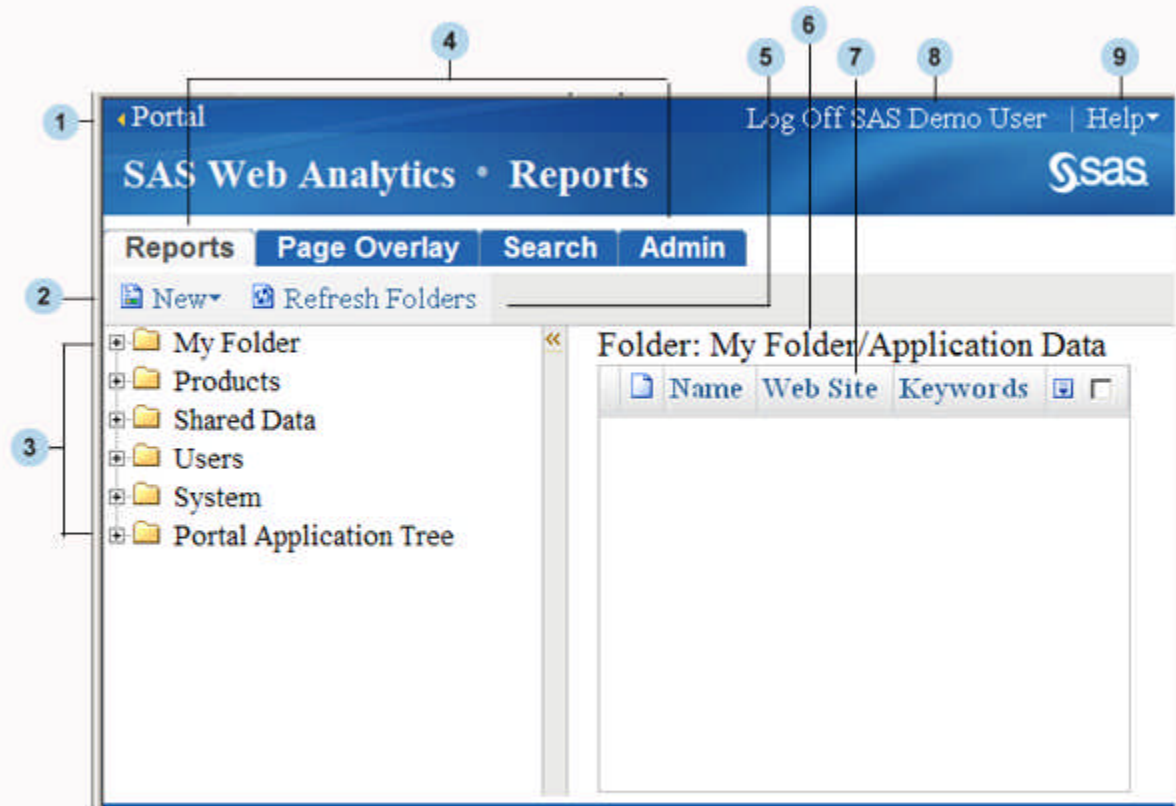
1 The **Portal** button, if available, takes you to the SAS Portal home page. A page of portlets appears that contains reports. For each portlet, you can edit properties, edit content, and remove or minimize the portlet.

2 The **New** menu displays a list of analytical reports that you can design and view.

3 The metadata tree structure lists folders and reports. For more information, see "Metadata Tree Structure" on page 16.

4 Four tabs are present in the GUI:

- **Reports**

- **Page Overlay**

- **Search**

- **Admin**

For more information, see "SAS Web Analytics Tabs" on page 15.

5 The **Refresh Folders** button refreshes the folder items.

6 The **Folder** field identifies the current folder and lists the reports that are in the folder.

7 The report bar provides information about each of the reports in the folder. For more information, see "Report Bar" on page 17.

8 The **Log Off** button enables you to log off of SAS Web Analytics.

9 The **Help** button provides access to help topics for SAS Web Analytics. You can access window help, and you can click the HTML or PDF copy of the SAS Web Analytics User's Guide and find the information you need.

SAS Web Analytics Tabs

The following tabs are available with SAS Web Analytics:

Reports

You click the **New** button that is located under the **Reports** tab to list the reports that you can design:

- The Performance Monitor report presents an on-demand display of Web site measurements (metrics) that alerts you to changes in business direction.

- The Performance Insight report enables you to view the performance and forecast values of the key performance indicators that drive your business on the Internet.

- The Funnel report enables you to see the sequence of Web pages that were visited.

- The Path report analyzes the sequence of Web pages that were visited within your Web site.

Page Overlay

You use the **Page Overlay** tab to overlay Web pages with metrics. The Page Overlay feature generates a site's Web page with associated metrics for each link that is overlaid on the page.

Search

You use the **Search** tab to search for an existing report or to search for keywords that were added to help identify a report or group of reports. To use this feature, select the **Name** or **Keywords** button after clicking the **Search** tab, and enter a value in the **Search For** field. Then select the type of report you are searching for. Click **Find** to begin the search. Click **Clear** to clear the search parameters.

Admin

Clicking the **Admin** tab displays three tabs:

- **Search Engine Bid Management**

   An analytics administrator uses the Edit Search Engine Bid Management Goals window to edit search engine bid management goals. An administrator can identify a specific page within a Web site as a goal page. The goal page can be designated to be a response to a paid search term.

- **Campaign Goal Management**

   You use the Edit Campaign Goals window to add, delete, or revise campaign goals.

- **Web Sites**

   You use the Web Sites report to view the valid dates for available Web sites.

Metadata Tree Structure

The SAS folders tree structure is the organizational structure for metadata. The tree structure contains the following folders:

- **My Folder**

  This folder is a standard location for the work you are doing. It is the initial default location for open and save dialog boxes in SAS client applications. This folder is private and the contents of this folder cannot be shared with other users. The owner of the folder can add or remove contents from the folder, but cannot rename, delete, move, or change permissions.

- **Products**

  This folder is dedicated to metadata objects that are delivered by SAS products. Content can range from libraries, tables, jobs for Web site creation, stored processes, cubes, and information maps to be used as data sources for creating reports.

- **Shared Data**

  This folder is the default location for shared library, table, cube, and information map definitions.

- **Users**

  This folder is dedicated to folders that are used in the user home location.

- **System**

  This folder is dedicated to SAS system objects. It is hidden by default in most client applications and contains objects that you cannot directly access. This folder is used by system administrators, and will not display if you do not have system administrator permissions.

- **Portal Application Tree**

  This folder is the root folder for application-based metadata objects. Each application creates a folder that has the legal name of the application. The folder structure for each application provides for multi-deployment and multi-version support. Objects that are located in these folders are the application object and any other type of object that is used solely by an application.

Report Bar

The following example shows the SAS Web Analytics report bar and a list of sample reports that reside in the **My Folder** folder:

Display 2.3   *Report Bar in the SAS Web Analytics Graphical User Interface*
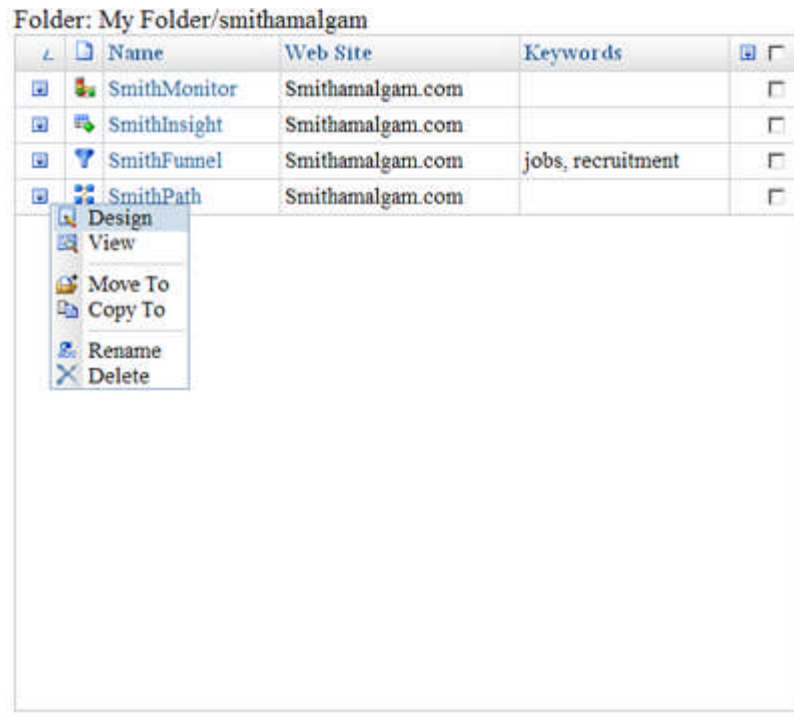
The report bar contains several columns:

- The first column contains an icon, that, when clicked, shows a list of actions that you can perform on the selected file.

  When you select **Design**, you access the design window of the report you selected. You can change the existing data to modify the report.

  When you select **View**, a new report is generated based on the report definition that a SAS Web Analytics analyst developed.

  When you select **Move To** or **Copy To**, you can move or copy your report to another directory.

  When you select **Rename**, you can rename the report.

  When you select **Delete**, you can remove the report from the list.

- The second column contains an icon that identifies the kind of report:

  - Performance Monitor

  - Performance Insight

  - Funnel

  - Path

- The **Name** column lists the name of your report.

- The **Web Site** column lists the Web site that you used to design the report.

- The **Keywords** column can contain a list of terms that were entered by the report designer to facilitate searching for the report. For more information about using keywords, see "Add or Delete Keywords" on page 18.

- The last column enables you to select one or more reports by placing a check mark in the box. When you check the box in the Report Bar heading, all of the reports are selected. To select individual reports, click the box for that report.

    When you click the icon in the last column of the Report Bar, a menu appears. You can select the following tasks from the menu: move or copy the selected reports to another directory, add and set keywords, and delete reports.

Add or Delete Keywords

You select a report that you want to add keywords to or delete keywords from by checking the box in the last column of the Report Bar. If you click the icon in the Report Bar heading, all of the reports are selected. After you select your reports, click the icon in the last column to display a menu of tasks. The following example shows the menu:

Display 2.4 *Add and Set Keywords Menu in Report Bar*

Folder: My Folder/smithamalgam

|		Name	Web Site	Keywords	
		SmithMonitor	Smithamalgam.com		Move To / Copy To
		SmithInsight	Smithamalgam.com		Add Keywords / Set Keywords
		SmithFunnel	Smithamalgam.com		
		SmithPath	Smithamalgam.com		Delete

To add keywords to a report, select the report, and then select **Add Keywords** from the menu. In the window that appears, enter a keyword and click **OK**. To add another keyword to the same report, select the report, and then select **Add Keywords** from the menu. When you enter a keyword and click **OK**, the keyword is added to the previous keyword for the report.

To delete keywords from a report, select the report, and then select **Set Keywords** from the menu. In the window that appears, leave the **Keywords** field blank and click **OK**. The keywords are deleted from the **Keywords** column for the report.

Move and Copy Items

You can move or copy items from one folder to another in the SAS Web Analytics - Reports window. To move or copy an item, perform the following tasks:

1. To select a report that you want to move or copy, click the corresponding ⬇ icon in the first column of the **Folder: My Folder** section of the SAS Web Analytics - Reports window.
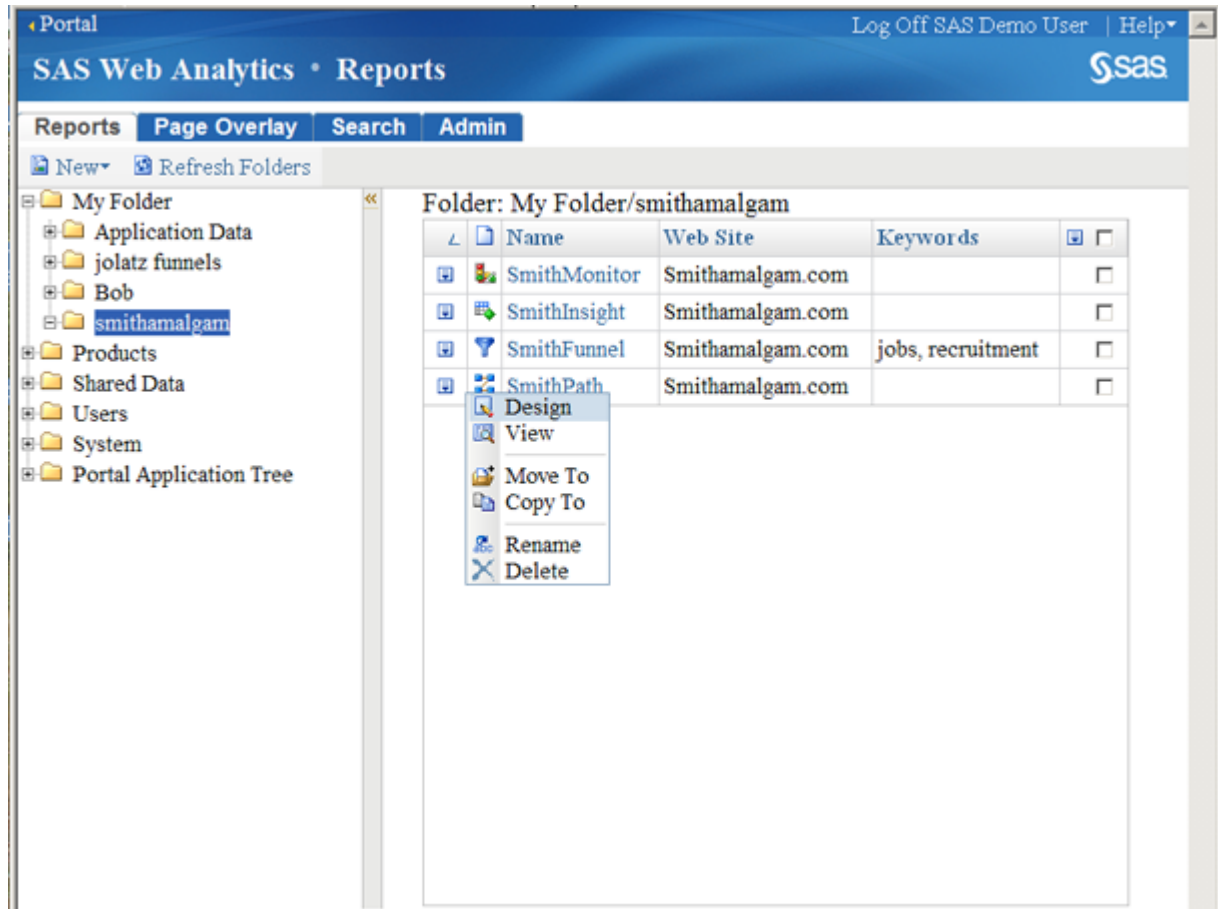
2. Select **Move To** or **Copy To** from the menu. Depending on which action you select, a **SAS Web Analytics - Move Items** or **SAS Web Analytics - Copy Items** window appears. The following example shows the **SAS Web Analytics - Copy Items** window.
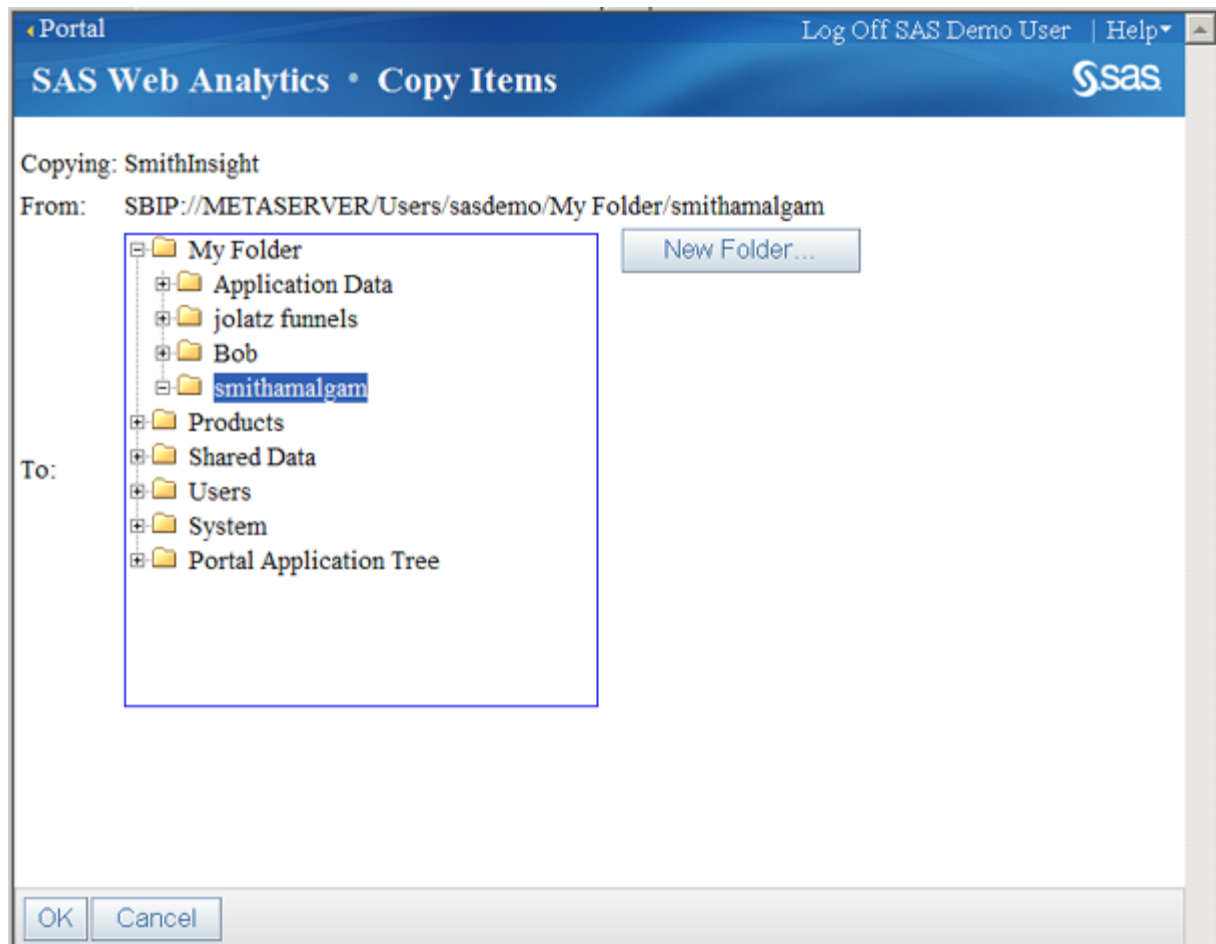
3. Click a folder to which you want to copy your report.

   You can move or copy reports to a new folder by first clicking the **New Folder** button to create a new folder.

4. Click **OK**.

Log Off of SAS Web Analytics

To log off of SAS Web Analytics, click the **Log Off** button, which is located in the upper-right corner of the SAS Web Analytics window.

Part 2

Analytical Reports and Features

Chapter 3

View Changes in Business Direction

About the Performance Monitor Report

You can use the Performance Monitor report for decision support. The Performance Monitor report analyzes Web site data from a set of key performance indicators (KPIs) for short-term and long-term performance based on the business direction of the metric.

The Performance Monitor report displays the values for a site's metrics, and assigns a performance level to that metric based on its desired business direction. The report displays actual, minimum, and maximum values for that metric on a given date.

The Performance Monitor enables you to perform the following tasks:

- Select one or more metrics. You can edit the labels of individual KPIs after the metric has been selected.

- Set a goal for a metric. The goal is represented in the goal graph.

- Set a date range for the monitoring of a goal. The range is represented in the goal graph.

- Forecast a value based on a goal date.

- View the trend of a metric.

- Determine whether a forecast of a value is above, below, or on target with the goal value for a goal date.

- Specify daily, weekly, and monthly data intervals.

- View summary level information and display KPI-related metrics so that you can view data until the goal date has been met.

The Performance Monitor Report: Basic Concepts

What Are Key Performance Indicators (KPIs)?

A KPI is a metric that you select that tracks the performance of a particular aspect of your business. You must have at least one KPI.

What Is a Goal?

Key performance indicators can have a goal value assigned to the metric for a specific time period. The goal value is assigned by the analyst and should be an attainable level by that metric.

What Is Forecasting?

Forecasting analyzes a metric over time (days, weeks, or months) to predict the likely values for the next seven time periods. The analysis uses Econometric Time series techniques to forecast values.

What Is Trending?

A trend graph plots a metric over time (days, weeks, or months) after a trend analysis is performed. The trend line that is displayed is based on the outcome of the trend analysis.

Input Requirements for the Performance Monitor Report

The Design Performance Monitor Window

For the Performance Monitor report, the following window appears when you select **Performance Monitor** from the **New** menu:

Display 3.1 *Design Performance Monitor Window*

The following fields display in the Design Performance Monitor window:

Field	Description
Web site	specifies a collection of related Web pages, or the data that is stored with the Web site's data mart, which contains Web log information.
Name	specifies the name of the report.

Field	Description
Interval	specifies a summary interval. The available options are daily, weekly, and monthly.
Display Periods	specifies the number of periods that appear on the trend, forecast, and goal graphs. The value of **Display Periods** determines the number of periods that are graphed.
Metric	specifies any standard of measurement that is used as a basis for evaluation or comparison. For example, ROI (return on investment) is a metric that is commonly used by businesses as a basis for making decisions, and bytes per second throughput is a common performance metric.
Direction	specifies a positive (Up) or negative (Down) business direction.
Goal Start	specifies the beginning date on which you measure a goal.
Goal Completion	specifies the ending date on which you measure a goal.
Goal Value	specifies the value that you want the metric to reach.

Days of Data Needed to Produce the Performance Monitor Report

The Performance Monitor report can be produced no matter how many days of data exist in the input data set. However, the forecast graph does not appear until at least 12 periods of data are available. A data period (day, week, or month interval) is specified in the Monitor definition. The trend graph does not have a trend line until there are 12 periods of data.

The value of **Display Periods** determines the number of periods that are graphed.

Goal Dates

In designing the Performance Monitor report, you can choose to enter no goal dates, either a goal start date or a goal completion date, or both goal start and goal completion dates.

How a Goal Period Is Evaluated

The following rules apply to evaluating a goal period:

- If the goal start date is blank, then the goal value applies to all data that is analyzed before or on the goal end date.

- If the goal end date is blank, then the goal value applies to all data with dates equal to or greater than the goal start date.

- If the goal start and end dates are specified, then that is the period that is analyzed.

- If the goal start date and goal completion dates are blank, then the goal value applies to all dates within the analytical data.

Example of a Performance Monitor Report

The Performance Monitor Report

The name of the Web site, the report name, and the date for which the report was created appear at the top of the report. If there is a problem with the report output, such as dates that are out of range for the Web site, the Design Performance Monitor window does not appear. Instead, an ⚠ icon appears to the left of the Web site name. Click the arrow, review the error message, correct the error, and then view the report again.
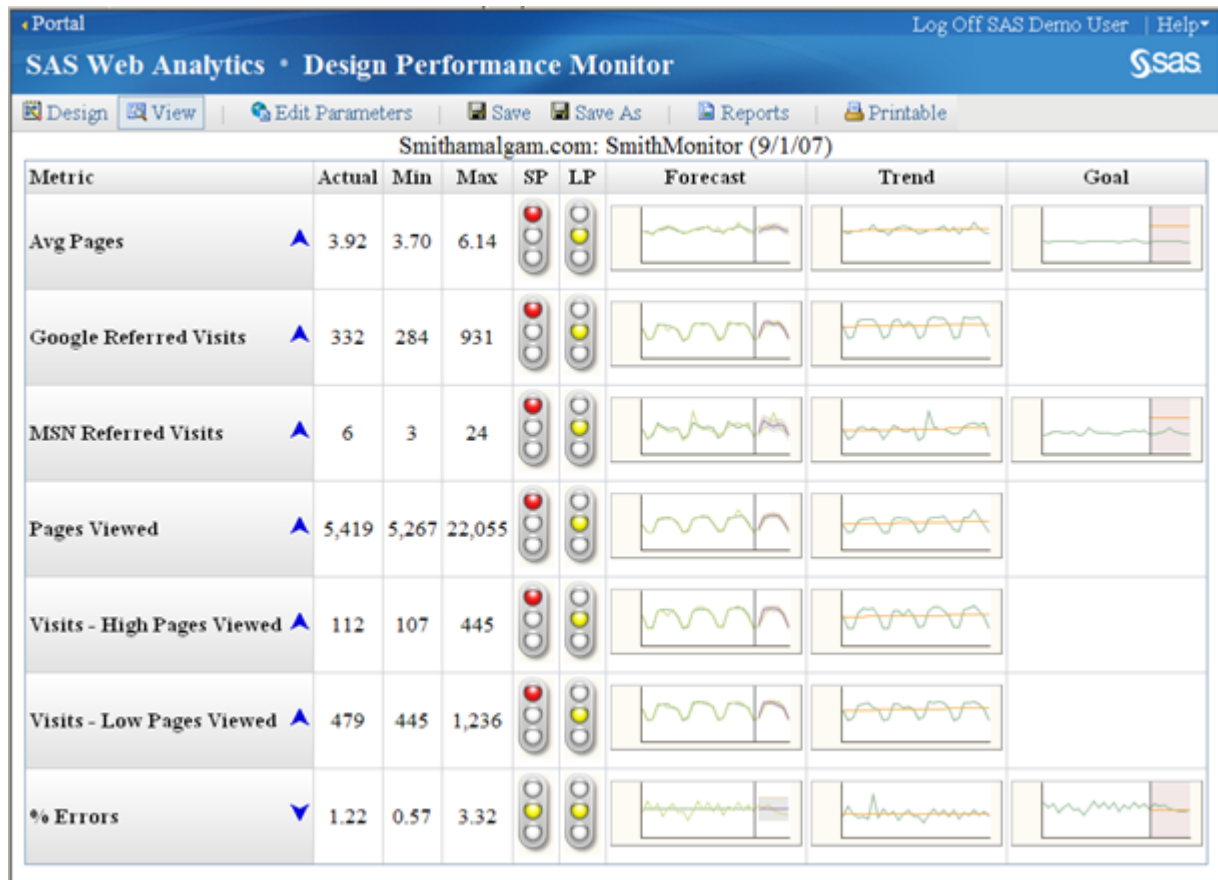
The Performance Monitor report contains traffic light indicators so that you can see short-term and long-term performance of each metric. A red light indicates below average performance; a yellow light indicates average performance; and a green light indicates above average performance.

To view a graph, position your cursor over the graph. The graph will expand, showing values for the X and Y coordinates. A legend identifies the lines in the graph.

To view both a graph and table image, you must first save your report. Then select the report from the folder in which the report was saved. When you open the report, double-click the graph and both the graph and table display.

Here is an example of the Performance Monitor report:

Display 3.2   Design Performance Monitor Window

Description of the Fields in the Performance Monitor Report

The following table describes the fields in the Performance Monitor report:

Field	Description
Metric	specifies the name of a measurement that is selected from the metric list. An up or down arrow shows the preferred business direction. *Note:* Metric names must not contain the following special characters: \ / ' < >
Actual	specifies the value of the metric on the report date.
Min	specifies the minimum value of the metric for all data that is available within the analytical data set.
Max	specifies the maximum value of the metric for all data that is available within the analytical data set.
SP	specifies a Performance Indicator that displays short-term performance. The display is in the form of a traffic light.
LP	specifies a Performance Indicator that displays long-term performance. The display is in the form of a traffic light.

The **Forecast**, **Trend**, and **Goal** columns display graphics, if graphs are available.

How the Traffic Light Interprets Data

The color of the traffic light indicates short-term performance (SP) and long-term performance (LP). The red light indicates "not as intended" performance; the yellow light indicates neutral performance; and the green light indicates "as intended" performance.

The following example shows how to interpret short-term and long-term performance. A monitor was designed that has three metrics. The actual, minimum, and maximum values are listed, along with the traffic light color for short-term and long-term performance:

```
                     Actual Min Max    SP      LP
      400 Bad Request:    0    0   0   yellow  yellow
     401 Unauthorized:    0    0  37   red     yellow
408 Request Timeout:      0    0   0   yellow  yellow
```

The line for 400 Bad Request shows that the value for **Actual** is 0. Even though you want this metric to be low, the SP and LP indicators are yellow and not green. The color of the LP indicator is correct because all of the available data is being used for this metric, and the trend line is flat.

The line for 401 Unauthorized shows that the value for **Actual** is 0. Even though you want this metric to be low, the SP indicator is red and the LP indicator is yellow and not green. The color of the LP indicator is correct because long-term performance evaluates the trend and not the forecast, and all of the available data is being used for this metric. The trend line is going up, but not so significantly that the LP indicator is red.

The line for 408 Request Timeout shows that the value for **Actual** is 0. The forecast line is at 0 and the trend line is at 0. Even though you want this metric to be low, the SP and LP indicators are yellow and not green. The color of the indicators is correct because the color is determined by using auto regression analysis, and that indicates no change to this metric.

Positive or Negative Business Direction

The Metric column contains arrow icons that indicate how a metric has performed with respect to its positive business direction. The positive business direction can be assigned a value of **Up** or **Down**. For example, you might want the values for Google Referred Visits to increase over time. Therefore, the positive business direction for Google Referred Visits is **Up**. For another metric such as Error 404 Count (File Not Found), whose values you want to see decrease over time, the positive business direction is **Down**.

The positive business direction value for each metric is stored in the Performance Monitor report definition. A user with Web Analytics analyst permissions can create and modify report definitions.

Description of the Graphs in the Performance Monitor Report

Forecast Graph

A forecast graph is available for each metric within the Performance Monitor when there are at least 12 time periods (days, weeks, or months) of data before the selected report date. The graph plots the actual and predicted values of a metric up to the report date. After the report date, forecast values are plotted for the next seven calendar periods (days, weeks, or months).

Here is an example of the forecast graph:

Display 3.3 *Forecast Graph*
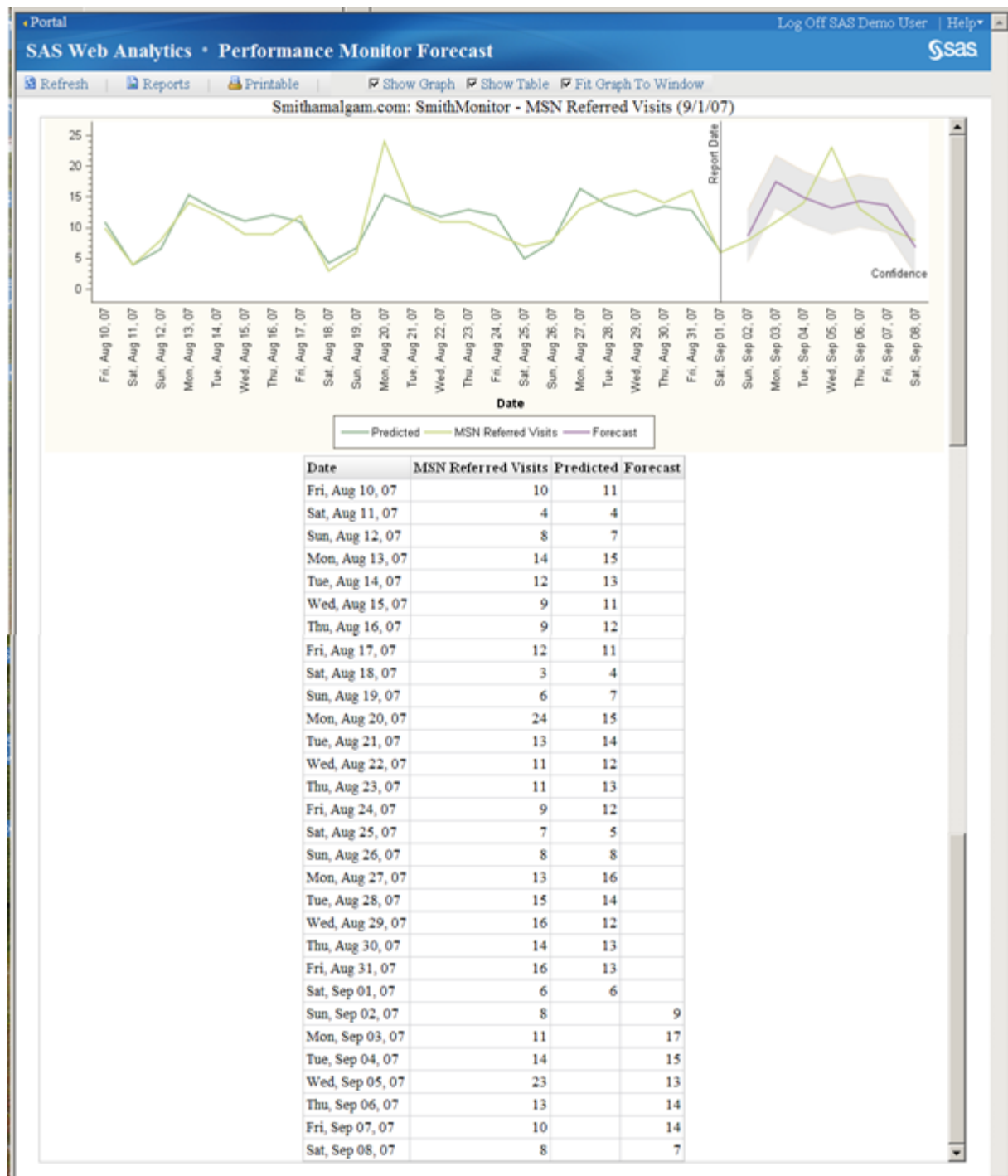
The Performance Monitor forecast graph displays the following items:

- Date

- Actual values (The label for this field is the name of the metric. In this example, the metric is **MSN Referred Visits**.)

- Predicted values

- Forecast values

- Forecast upper confidence limits

- Forecast lower confidence limits

The forecast confidence limits appear as a shaded region to the right of the report date.

A reference line that denotes the report date appears at the correct day. The forecast values appear to the right of this reference line. If the report is being run for a past date, and actual values exist, then the actual values are plotted to the right of the reference line along with the forecast values.

To view both a graph and table image, you must first save your report. Then select the report from the folder in which the report was saved. When you open the report, double-click the graph and both the graph and table display.

The default presentation of the forecast graph includes both a graph and a data table. To view only the graph, click the **Show Table** box to deselect the table. To view only the table, click the **Show Graph** box to deselect the graph.

Trend Graph

The trend graph displays all values for a metric up to the report date. A trend line is produced when there are at least 12 calendar periods (days, weeks, or months), up to and including the report date. Upward and downward movements are based on the report data for the requested dates.

Here is an example of a trend graph:

Display 3.4 *Trend Graph*
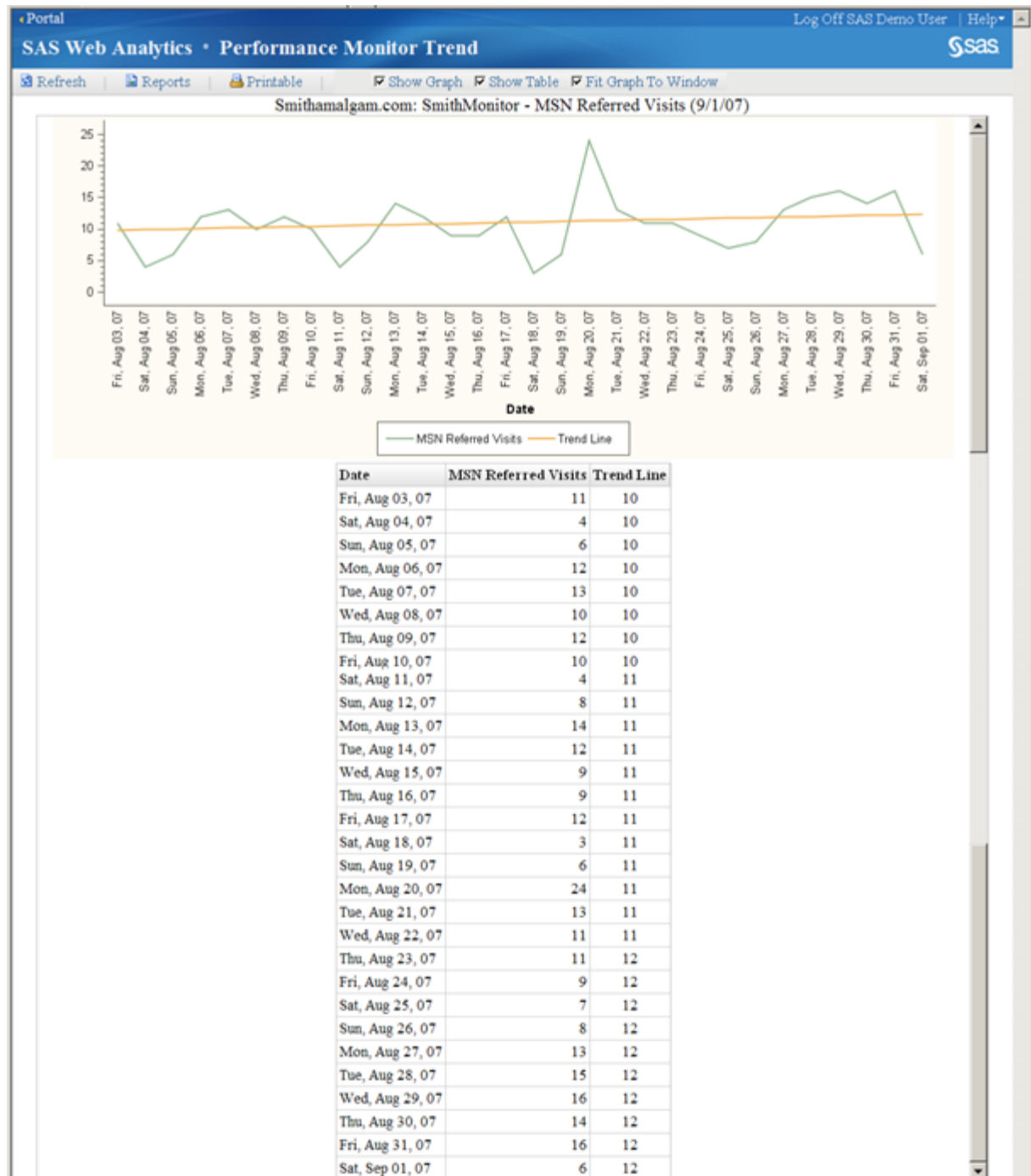
The Performance Monitor trend graph displays the following fields:

- Date

- Actual Values (The label for this field is the name of the metric. In this example, the metric is **MSN Referred Visits**.)

- Trend values

To view both a graph and table image, you must first save your report. Then select the report from the folder in which the report was saved. When you open the report, double-click the graph and both the graph and table display.

The default presentation of the trend graph includes both a graph and a data table. To view only the graph, click the **Show Table** box to deselect the table. To view only the table, click the **Show Graph** box to deselect the graph.

Goal Graph

A goal graph is created for a metric if the following criteria are met:

- a goal value was set for a specific metric within the Performance Monitor definition

- the report date that is selected is within the goal start and completion dates

Running a saved monitor enables you to double-click the goal graph to display the goal graph and table. The goal graph contains a total number of days that are specified in the **Display Fields** field. The dates that the goal graph display include the report date. The goal graph display ends on the goal completion date, or up to eight days past the report date.

The goal graph contains a line that represents the actual values of the KPI with a vertical line that indicates the report date. A forecast line is present in the graph if the analytical data contains at least 18 days of data, and the report date is less than the goal completion date. Also, no actual values exist for some of the periods between the report date and the goal completion date.

Here is an example of the goal graph:

Display 3.5 Goal Graph
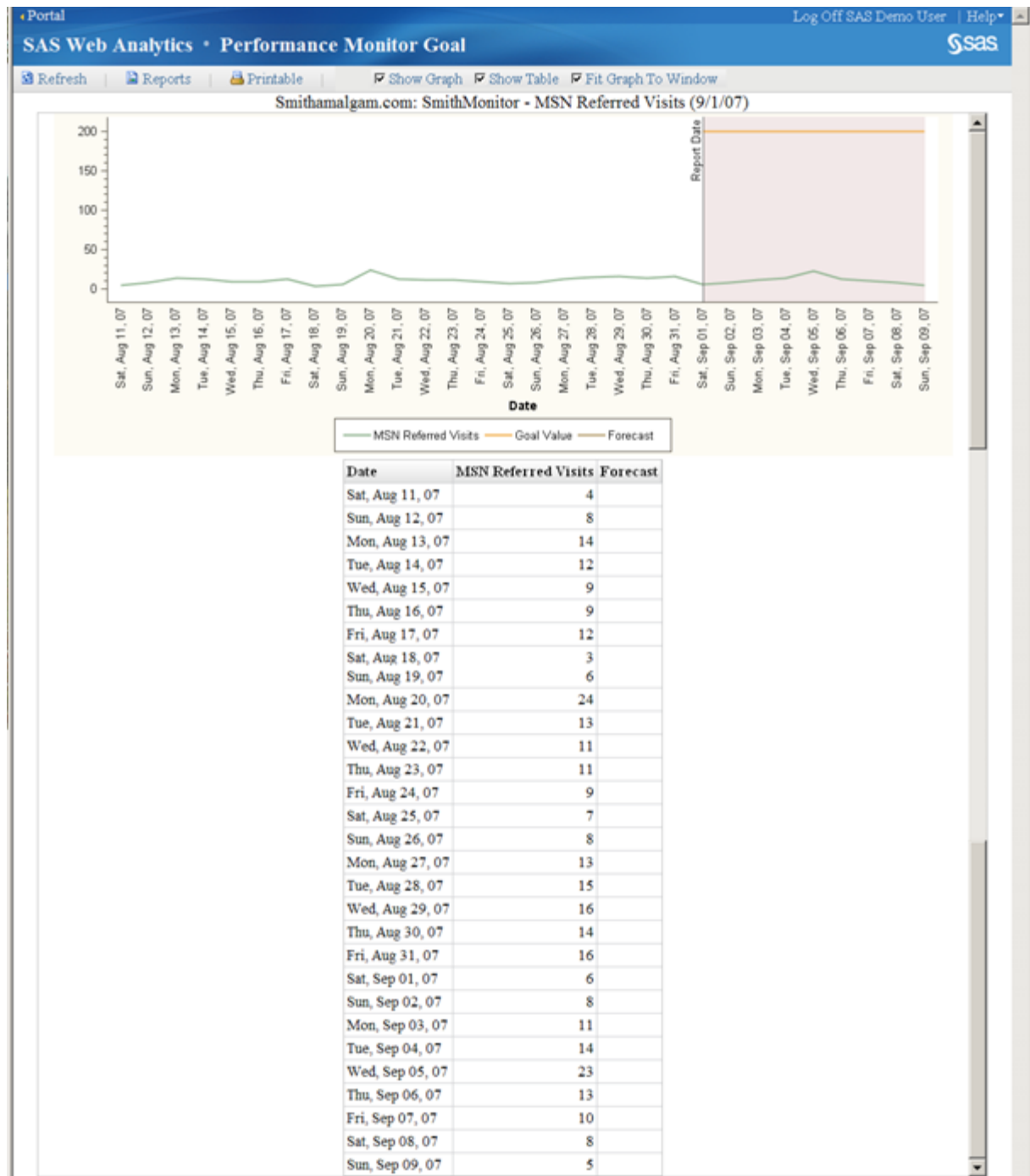
The Performance Monitor goal graph displays the following fields:

- Date

- Actual values (The label for this field is the name of the metric. In this example, the metric is **MSN Referred Visits**.)

- Goal values (A constant horizontal line denotes the value set for the goal.)

The goal interval is represented by a reference band on the graph.

To view both a graph and table image, you must first save your report. Then select the report from the folder in which the report was saved. When you open the report, double-click the graph and both the graph and table display.

The default presentation of the goal graph includes both a graph and a data table. To view only the graph, click the **Show Table** box to deselect the table. To view only the table, click the **Show Graph** box to deselect the graph.

Design a Performance Monitor Report

Who Can Design a Performance Monitor Report?

To design a Performance Monitor report, you must have SAS Web Analytics Analyst permissions. If you have Report User permissions, you will not be able to design reports.

Step 1: Access the Performance Monitor Report Window

Log on to SAS Web Analytics.

The following window appears:
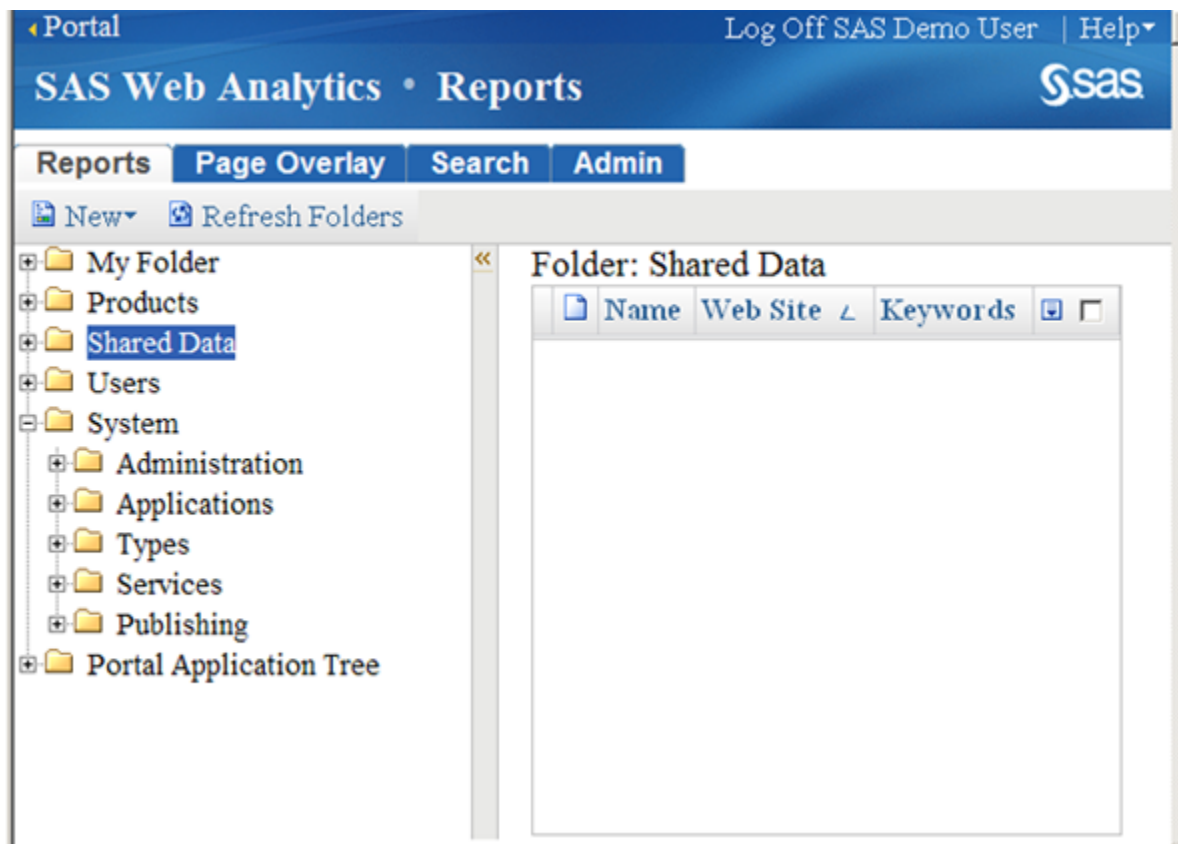
Step 2: Select a Folder

From the left pane, select a folder that will contain your new report.

Step 3: Open the Design Performance Monitor Window

Select the **New** menu on the **Reports** tab, and then select **Performance Monitor**.

The Design Performance Monitor window appears:


Step 4: Select Performance Monitor Properties

1. Select a Web site which contains the data for your report. Click the arrow in the **Web site** field and choose from the list of available Web sites.

2. Enter a name for your report so that you can save the report and open it later.

   Note: Report names must not contain the following special characters: \ / ' < >

3. Choose a summary interval. The available options are daily, weekly, and monthly.

   Note: Goal information is not available for weekly or monthly data.

4. Enter a number in the **Display Periods** field.

   Display periods are the number of periods that appear on the trend, forecast, and goal graphs.

Step 5: Add Report Metrics

1. Click **Add Metrics**.
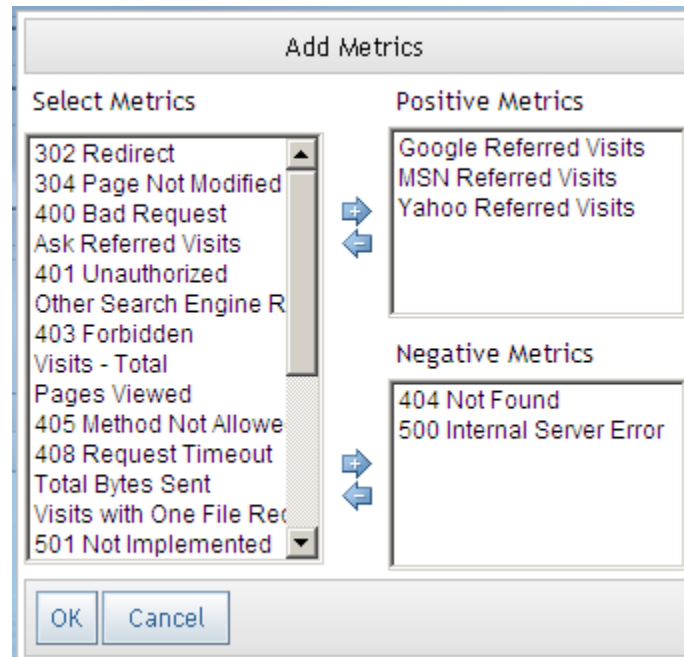
   The Add Metrics window appears:

2. Click a metric to select it, and then click the right arrow to move the metric to **Positive Metrics** or **Negative Metrics**.

   In this example, three metrics that were identified as positive were added to **Positive Metrics**. Two metrics that were identified as negative were added to **Negative Metrics**. To remove a metric from **Positive Metrics** or **Negative Metrics**, click the metric, and then click the left arrow. The metric returns to **Select Metrics**.

3. Click **OK**.

   The following window appears:

Step 6: (Optional) Change the Business Direction of a Metric

In the **Direction** field, click a table cell and select **Up** (positive) or **Down** (negative) to reflect the preferred business direction of the metric. The Performance Monitor report evaluates the metric according to the business direction.

Step 7: Select Goal Start and Goal Completion Dates

A report designer can choose to enter a goal start date, a goal completion date, or both. Either the goal start or goal completion date must be entered.

1. Enter a goal start date by clicking in a table cell in the **Goal Start** column. Enter a date or select a date from the calendar.

   The goal start date specifies the beginning of the goal period.

2. Enter a goal completion date by clicking in a table cell in the **Goal Completion** column. Enter a date or select a date from the calendar.

   The goal completion date specifies the date by which the goal should be reached (that is, the end of the goal period).

The goal graph will appear on the Performance Monitor report only if the report date falls within the goal period.

Step 8: Enter a Goal Value

Enter a goal value by clicking in a table cell in the **Goal Value** column. The goal value specifies the metric value that you want to meet within the time period specified. If a metric is a time value, then enter the number of seconds for the goal time value. For example, for average duration, if the goal value is 3 minutes and 30 seconds, then enter 210 seconds.

Step 9: View the Performance Monitor Report That You Designed

To view the report that you designed, click **View** on the left side of the menu bar.

Step 10: Save the Report

Click **Save** or **Save As** to save your report. When you enter a report name, click **OK**. The report is saved to your directory.

Step 11: (Optional) Print the Report

To print the report, click **Printable** in the upper-right side of the menu bar.

Step 12: (Optional) Print a Graph from the Saved Report

To print a graph and the associated table from a saved report, double-click the graph. When the graph and table appear, right-click the **Printable** button and select **Print Target**.

Save and Print a Performance Monitor Report

To save a Performance Monitor report, select **Save** or **Save As** from the menu.

To print a report, select **Printable** from the menu. You can also view and print individual graphs from your report. To do this, you must first save the report. When you open the saved report, you can double-click a graph to display the output. By checking the boxes that are located above the graph, you can choose to view the graph and associated table, or view the graph and table separately. To print individual graphs from your saved report, click **Printable**.

Change the Input Parameters for a Performance Monitor Report

After you view your report, you can change the input parameters in the following ways:

• Select **Design** on the upper-left menu bar of the report.

The **Performance Monitor Properties** and the **Add Metrics** sections of the Design Performance Monitor window show the information that you entered when you last updated the report's definition. Change any information in the fields, and click **View** to display a new report.

- To change the start date of your report, click **Edit Parameters** on the menu bar and select a new date. No other fields in your report will change.

  Click **View** to display the report.

- To delete a metric that you added, click the icon in the first column of the metric.

Using the Performance Monitor Report to Conduct Business

Identify Business KPI Goals

If you are given a quota that you must reach every week, month, or quarter, you can use the Performance Monitor report to determine whether you are reaching your goal. If you find that you are not reaching your goal based on the current trend, you can determine what you need to do to change the current trend.

Monitor a Web Campaign

You can monitor and report on the status and progress of a Web campaign. Your report contains a campaign metric, and by using the goal capability you can enter the start and end dates for the campaign, and the goal value of the campaign metric. You can report on the current status of the metric relative to the campaign date range and goal. You can forecast where the metric will be on the goal date, and determine whether the campaign is on, above, or below the target you set.

If you monitor a pay per click (PPC) campaign, you monitor visits from each PPC service. You can create metrics that count the number of visits for search engines such as Google, Yahoo, or MSN. For each PPC service you might want the business trend to increase (that is, you might want more visits from each PPC referrer). However, for Yahoo, you might want fewer visits if you are trying to phase out that PPC service. After adding metrics, you can open the Performance Monitor report to see the results for the previous day. If the Yahoo visit count is performing negatively, you can open the trend graph and see that the metric has a decreasing trend, but that currently the metric is above the trend. You can then open the Forecast report and see that the forecast indicates that while the metric might decrease in the short term, it will increase again over time.

Chapter 4

View the Performance and Forecast Values of KPIs

About the Performance Insight Report

You can use the Performance Insight report to determine which metrics drive a positive response for a specific metric. The report enables you to determine which variables in the input data set have a statistically significant impact on the target metric. The Performance Insight report lists the variables in the order of their importance in affecting and predicting the target metric.

The Performance Insight Report: Basic Concepts

What Is a Target Metric?

A target metric is a metric whose objective is to determine which other metrics drive a positive response. Selection of a metric depends on business reasons. For example, you might want to determine how the number of visits are affected by various marketing campaigns (pay per click, banner ads, flyers).

What Is an Input Metric?

An input metric is a metric that is suspected of being associated with the target metric. In other words, an input metric could be a driver of the target. For example, an increase in total visits might be associated with visits that start because a potential prospect was sent to your site by a link on a search engine result page.

Target Driver Determination

Performance insight is considered to be data modeling. The target metric is analyzed using High-Performance Forecasting techniques to determine which of the input metrics are associated with the target.

Forecasting Individual Metrics

Forecast analysis occurs for the target metric and for significantly associated input metrics. This analysis is the same as the analysis in the Performance Monitor.

Input Requirements for the Performance Insight Report

The following window appears when you select **Performance Insight** from the **New** menu:

Display 4.1 *Design Performance Insight*

The following fields display in the Design Performance Insight window:

| Field	Description
Web site	specifies a collection of related Web pages, or the data that is stored with the Web site's data mart, which contains Web log information.
Name	specifies the name of the report.
Interval	specifies a summary interval. The available options are daily, weekly, and monthly.
Display Periods	specifies the number of periods that appear on the trend, forecast, and goal graphs. The value of **Display Periods** determines the number of periods that are graphed.
Metric	specifies any standard of measurement that is used as a basis for evaluation or comparison. For example, ROI (return on investment) is a metric that is commonly used by businesses as a basis for making decisions, and bytes per second throughput is a common performance metric.

Field	Description
Role	specifies whether the metric is an input or target metric.
Direction	specifies a positive (Up) or negative (Down) business direction.

Example of a Performance Insight Report

The Performance Insight Report

Here is an example of the Performance Insight report:

Display 4.2 *Performance Insight Report*
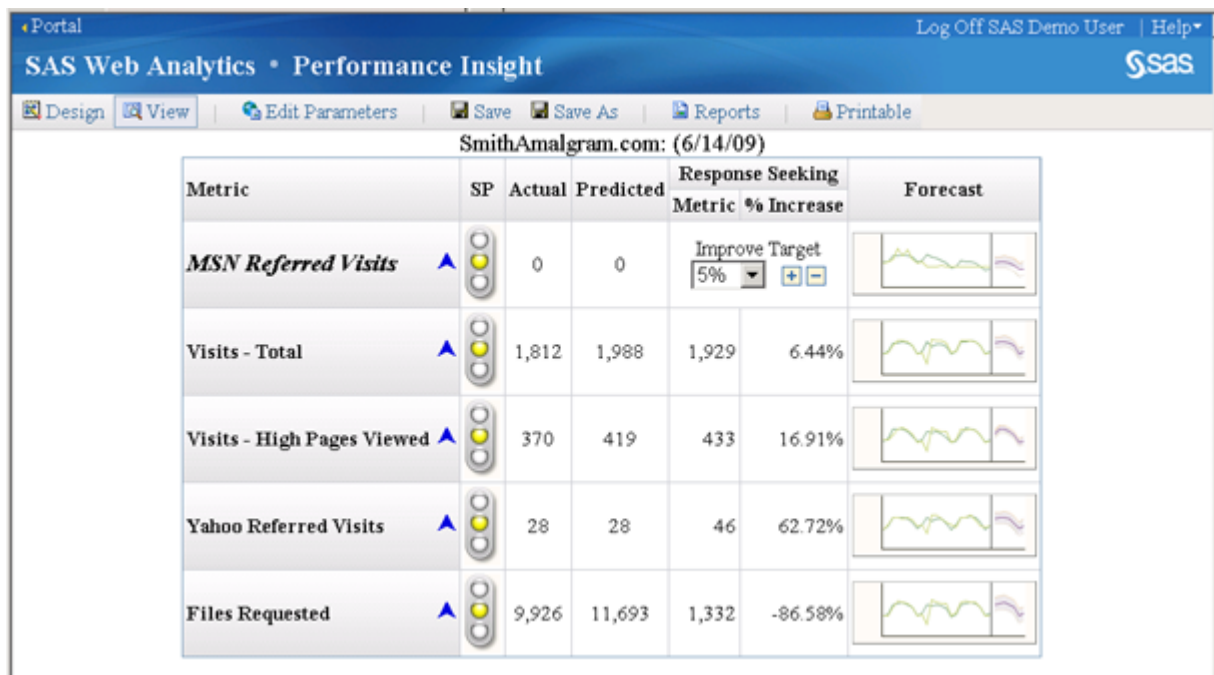
The name of the Web site, the report name, and the date for which the report was created appear at the top of the report. The report contains the target metrics and only those input metrics that are significantly associated with the target. That is, not all selected input metrics might be associated with the target. It is possible when you initially define a Performance Insight report to not select input metrics that are significantly associated with a target metric.

Each of the metrics contains an arrow icon in the column that indicates the business direction for that metric. The **Up** arrow indicates a positive business direction, and the **Down** arrow indicates a negative business direction. For example, you might want the values for the first metric to increase over time. The business direction for that metric is **Up**. For another metric, such as an error count, you might want the values to decrease over time. The business direction of this metric is **Down**.

The Performance Insight report contains traffic light indicators so that you can see the short-term performance of each metric. A red light indicates "not as intended" performance; a yellow light indicates neutral performance; and a green light indicates "as intended" performance.

To view the forecast graph, position your cursor over the graph. The graph will expand, showing values for the X and Y coordinates. A legend identifies the lines in the graph.

Description of the Fields in the Performance Insight Report

The following table describes the fields in the Performance Insight report:

Fields	Description
Metric	specifies a measurement that is a KPI. The first metric in a report is always the target metric. All subsequent metrics are input metrics in order of how significantly they are associated with the target. *Note:* Metric names must not contain the following special characters: \ / ' < >
SP	specifies the short-term performance of a metric. The display is in the form of a traffic light. A red light indicates "not as intended" performance; a yellow light indicates neutral performance; and a green light indicates "as intended" performance.
Actual	specifies a metric's value for the summary period (day, week, or month) that you request.
Predicted	specifies the predicted value for the summary period (day, week, or month) that you request.
Response Seeking	enables you to define how much the target KPI needs to improve, and then determine how much each individual driver metric needs to change independently to achieve the improvement in the KPI.

How the Traffic Light Interprets Data

For information about how the traffic light interprets data, see "How the Traffic Light Interprets Data" on page 28.

### Positive or Negative Business Direction

The Metric column contains arrow icons that indicate how a metric has performed with respect to its positive business direction. The positive business direction can be assigned a value of **Up** or **Down**. For example, you might want the values for Google Referred Visits to increase over time. Therefore, the positive business direction for Google Referred Visits is **Up**. For another metric such as Error 404 Count (File Not Found), whose values you want to see decrease over time, the positive business direction is **Down**.

The positive business direction value for each metric is stored in the Performance Insight report definition. A user with Web Analytics analyst permissions can create and modify report definitions.

The Forecast Graph from a Performance Insight Report

The following is an example of a forecast graph from the Performance Insight report:

Display 4.3   Forecast Graph
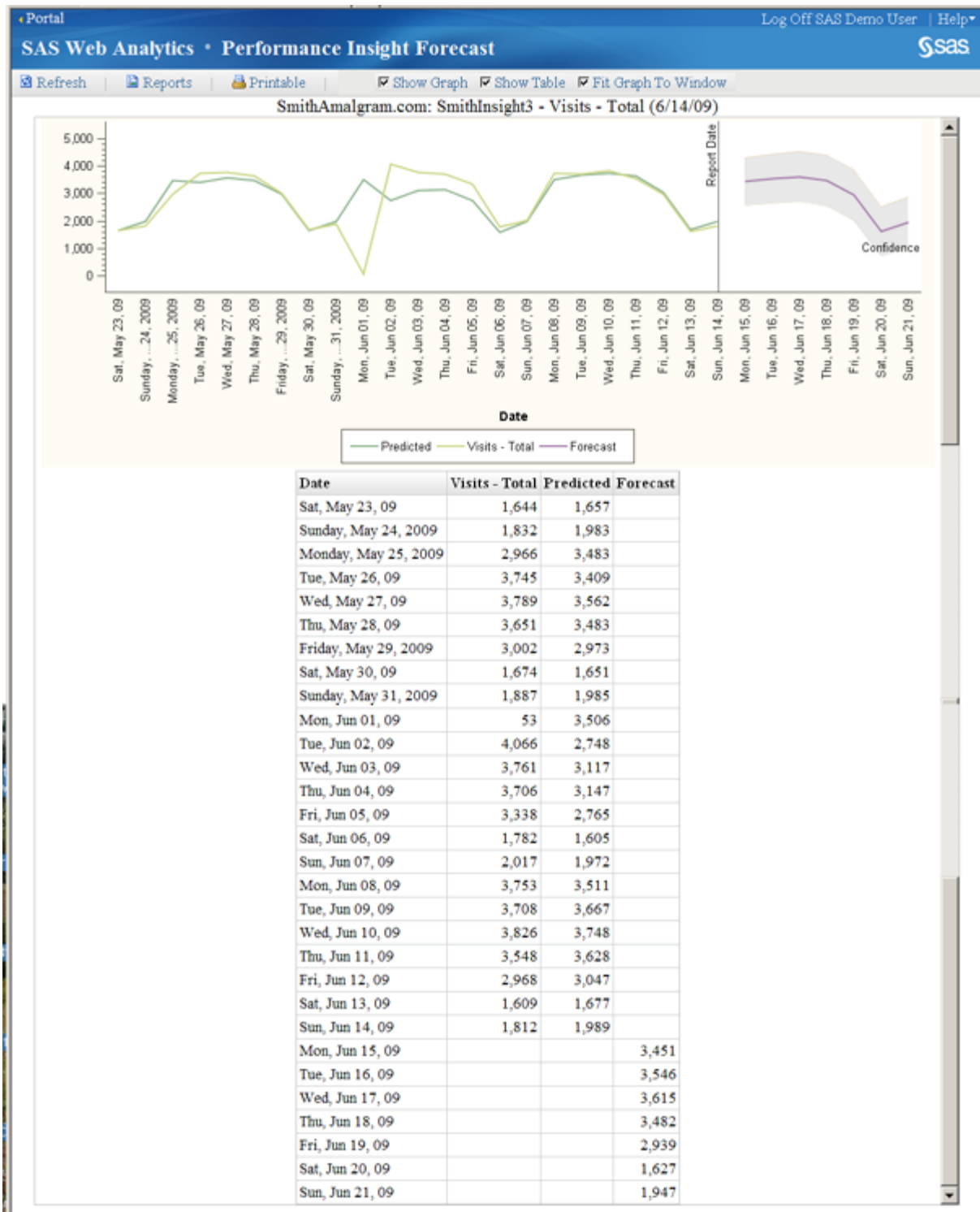
Description of the Forecast Graph in the Performance Insight Report

The Performance Insight forecast graph displays the following items:

- Date

- Actual values (The label for this field is the name of the metric. In this example, the metric is **Visits-Total**.)

- Predicted values

- Forecast values

- Forecast upper confidence limits

- Forecast lower confidence limits

The forecast confidence limits appear as a shaded region to the right of the report date.

A reference line that denotes the report date appears at the report day. The forecast values appear to the right of this reference line. If the report is being run for a past date, and actual values exist, then the actual values are plotted to the right of the reference line along with the forecast values.

There can be a difference between values in the main report and values in the forecast graph. This difference is the result of how the forecast value is created. In the main report, the predicted value is determined by excluding the report date from the forecast analysis. In the forecast graph, the report date is included in the forecast analysis.

Troubleshooting Report Problems

If There Is a Problem with Report Output

If there is a problem with the report output, such as dates that are out of range for the Web site, a ⚠ icon appears to the left of the Web site name. Click the arrow, review the error message, correct the error, and view the report again.

When the Response-Seeking Analysis Returns Zero Values

Sometimes there is not enough data to produce a response-seeking analysis even though the report generates data and a forecast graph. In this case, SAS Web Analytics returns an informational message about the analysis you want to perform.

When Your Report Returns No Data

To generate output from your Performance Insight, you must use valid dates for your Web site. Under certain conditions, your report will return no data even if you use valid dates. When this condition occurs, SAS Web Analytics issues the following message:

```
Insight analysis may not find statistically significant drivers for the
target metric.  Please select a date that is greater than the current report
date and rerun or change the input metrics.
```

Insight analysis first uses regression analysis to determine which input variables significantly affect a target in the period (day, week, or month) that is selected. If there is

only one driver, the preceding message could be expected. In addition, if you have multiple drivers for a target, the drivers that are significant could vary from period (day, week, or month) to period, and that situation would affect whether you received the message.
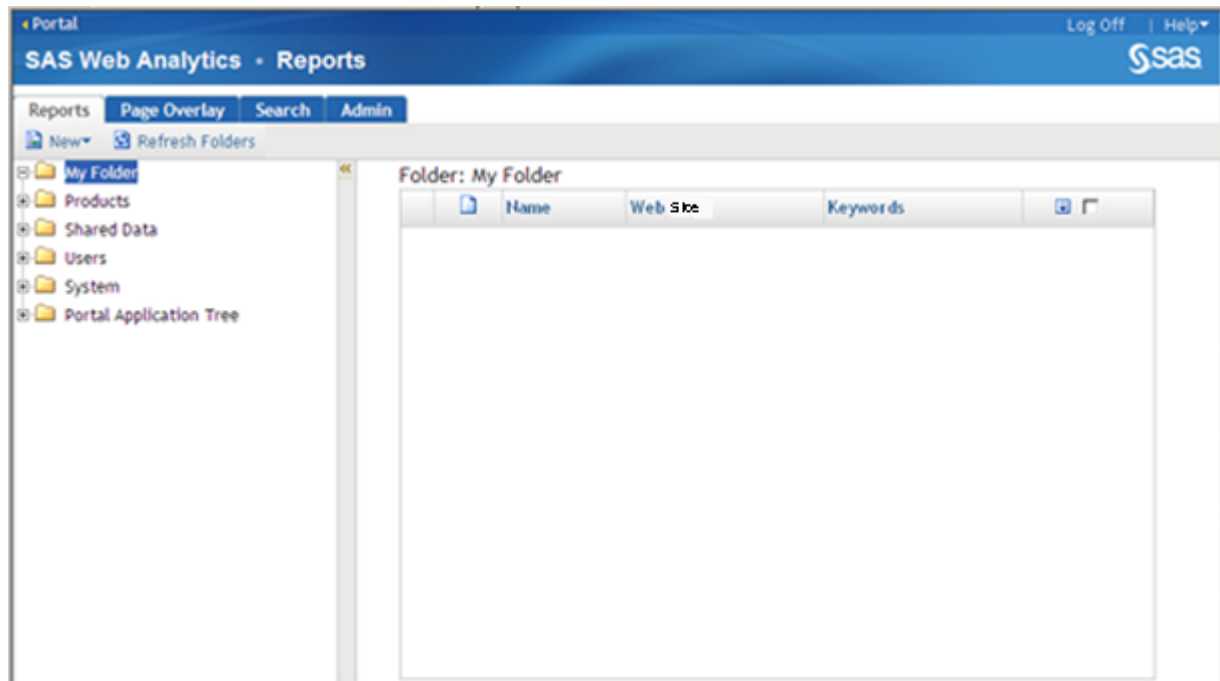
Design a Performance Insight Report

Who Can Design a Performance Insight Report?

To design a Performance Insight report, you must have SAS Web Analytics Analyst permissions. If you have Report User permissions, you will not be able to design reports.

Step1: Access the Performance Insight Report Window

1. Log on to SAS Web Analytics.

   The following window appears:

2. From the left pane, select a folder that will contain your new report.

3. From the **Reports** tab, select **New ⇨ Performance Insight**.

   The SAS Web Analytics - Design Performance Insight window appears:

Step 2: Select Performance Insight Properties

1. Select a Web site which contains the data for your report. Click the arrow in the **Web site** field and choose from the list of available Web sites.

2. Enter a name for your report so that you can save the report and open it later.

   Note: Report names must not contain the following special characters: \ / ' < >

3. Choose a time interval. The available options are daily, weekly, and monthly.

4. Enter a number in the **Display Periods** field.

   Display periods are the number of periods that appear on the forecast graph.

Step 3: Select Target and Input Metrics

1. Click **Add Metrics**.
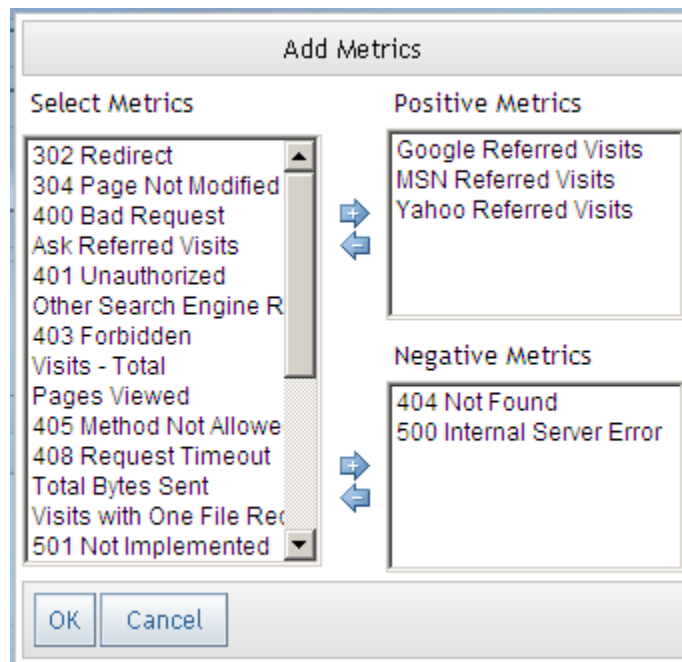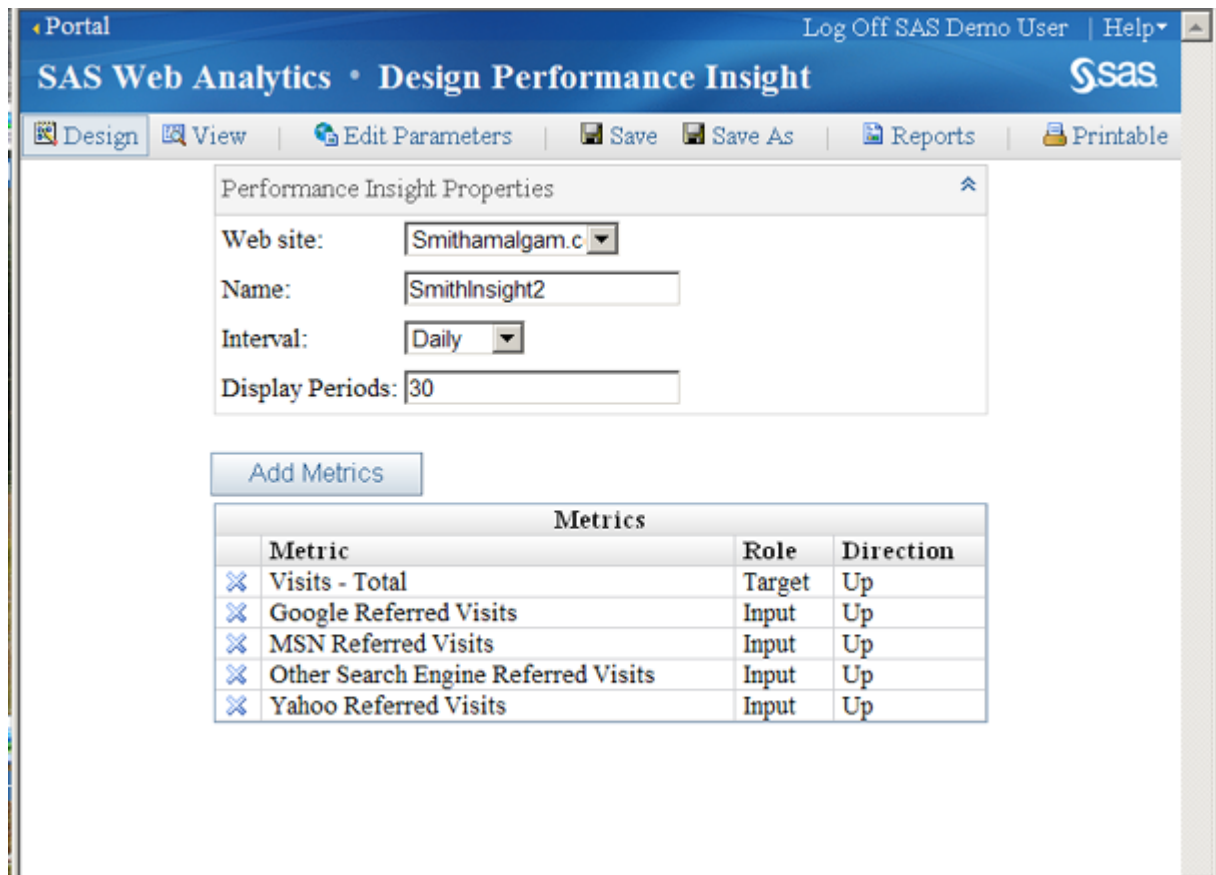
   The Add Metrics window appears:

2. Click a metric to select it, and then click the right arrow to move the metric to **Positive Metrics** or **Negative Metrics** window.

    In the preceding example, three metrics that were identified as positive were added to **Positive Metrics**. Two metrics that were identified as negative were added to **Negative Metrics**. To remove a metric from **Positive Metrics** or **Negative Metrics**, click the metric, and then click the left arrow. The metric returns to **Select Metrics**.

3. Click **OK**.

    Based on your selections, the following window appears:

The metrics that you select appear in the **Metric** column. The metric specifies the item for which a goal is set.

Step 4: Select a Target Metric

Select a target metric by clicking the corresponding cell in the **Role** column of the Design Performance Insight report window, and then selecting **Target**. Click outside of the cell for the change to take effect.

Step 5: (Optional) Change the Business Direction of a Metric

In the **Direction** field of the Design Performance Insight report window, click a table cell and select **Up** (positive) or **Down** (negative) to reflect the preferred business direction of the metric. The report evaluates the metric according to the business direction.

Step 6: (Optional) Delete Metrics from Your Report

To delete a metric from your report, click the ✖ icon that is located to the left of the **Metric** column.

Step 7: View the Performance Insight Report That You Designed

To view the report that you designed, click **View** on the left side of the menu bar.

Step 8: Save the Report

- If you have already named your report, click **Save** from the menu bar to overwrite the existing copy of your report.

- If you have not named your report, click **Save As** and enter the name of your report. The report is saved to a directory.

Step 9: (Optional) Print the Report

To print the report, click **Printable** in the upper-right side of the menu bar.

Step 10: (Optional) Print a Graph from the Saved Report

To print a graph and the associated table from a saved report, double-click the graph. When the graph and table appear, right-click the **Printable** button and select **Print Target**.

Save and Print a Performance Insight Report

To save a Performance Insight report, select **Save** or **Save As** from the menu.

To print a report, select **Printable** from the menu. You can also view and print individual graphs from your report, but you must first save the report. When you open the saved report, you can double-click a graph to display the output. By checking the boxes that are located above the graph, you can choose to view the graph and associated table, or view the graph and table separately. To print individual graphs from your saved report, click **Printable**.

Change the Input Parameters for a Performance Insight Report

After you view your report, you can change the input parameters in the following ways:

- Select **Design** from the upper-left menu bar of your report.

  The **Performance Insight Properties** and the **Add Metrics** sections of the Performance Insight window show the information that you entered when you last updated the report's definition. Change any information in the fields, and click **View** to display a new report.

- To change the start date of your report, click **Edit Parameters** on the menu bar and select a new date. No other fields in your report will change.

  Click **View** to display the report.

- To delete a metric that you added, click the icon in the first column of the metric.

Using the Performance Insight Report to Conduct Business

You can use the Performance Insight report to answer specific questions. In the following example, this question is answered: Which search engines drive visitors to your Web site? The report is set up as follows: The target metric is equal to the number of total visits. The input metrics equal the number of visits referrerd by Google, the visits referred by Yahoo, the visits referred by MSN, and the visits referred by other search engines.

The following example shows the report definition:

Display 4.4 *Business Case Example of a Performance Insight Report*

The following example shows the report output:

Display 4.5 *Business Case Report Output*
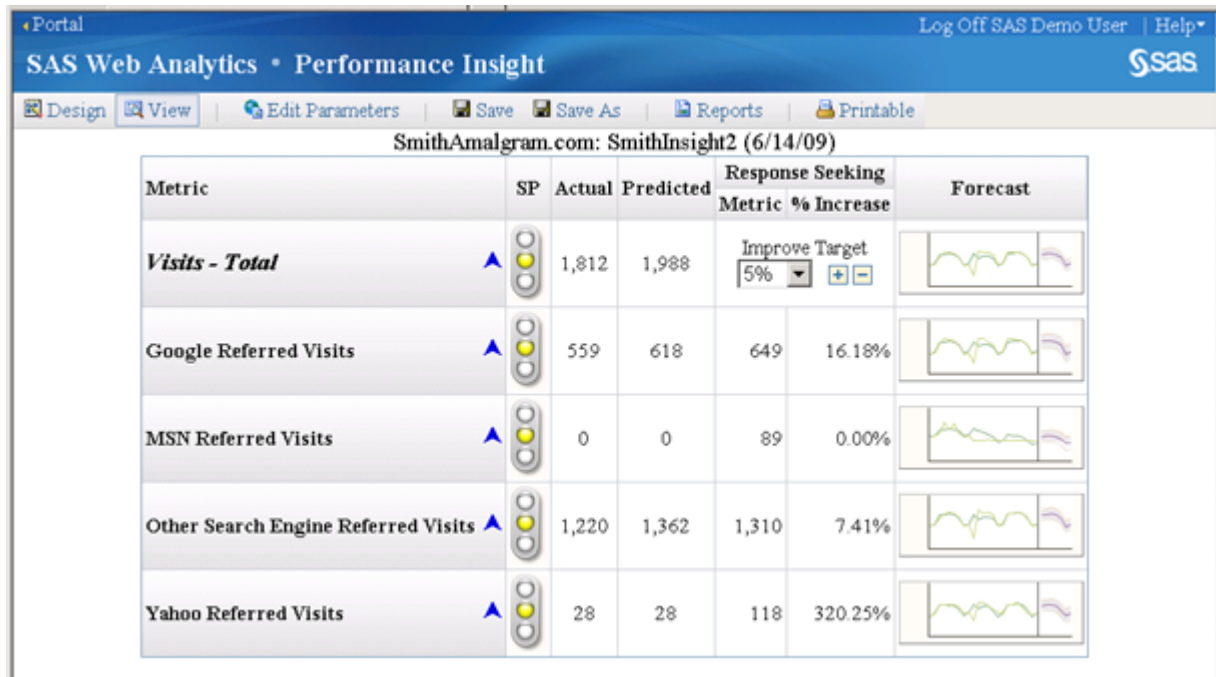
To display both the forecast graph and table, you must first save the report. Then select the report from the folder in which the report was saved. When you open the report, double-click the forecast graph, and both the graph and table display.

The following example shows the forecast graph for the target metric:

Display 4.6 *Business Case Forecast Graph*
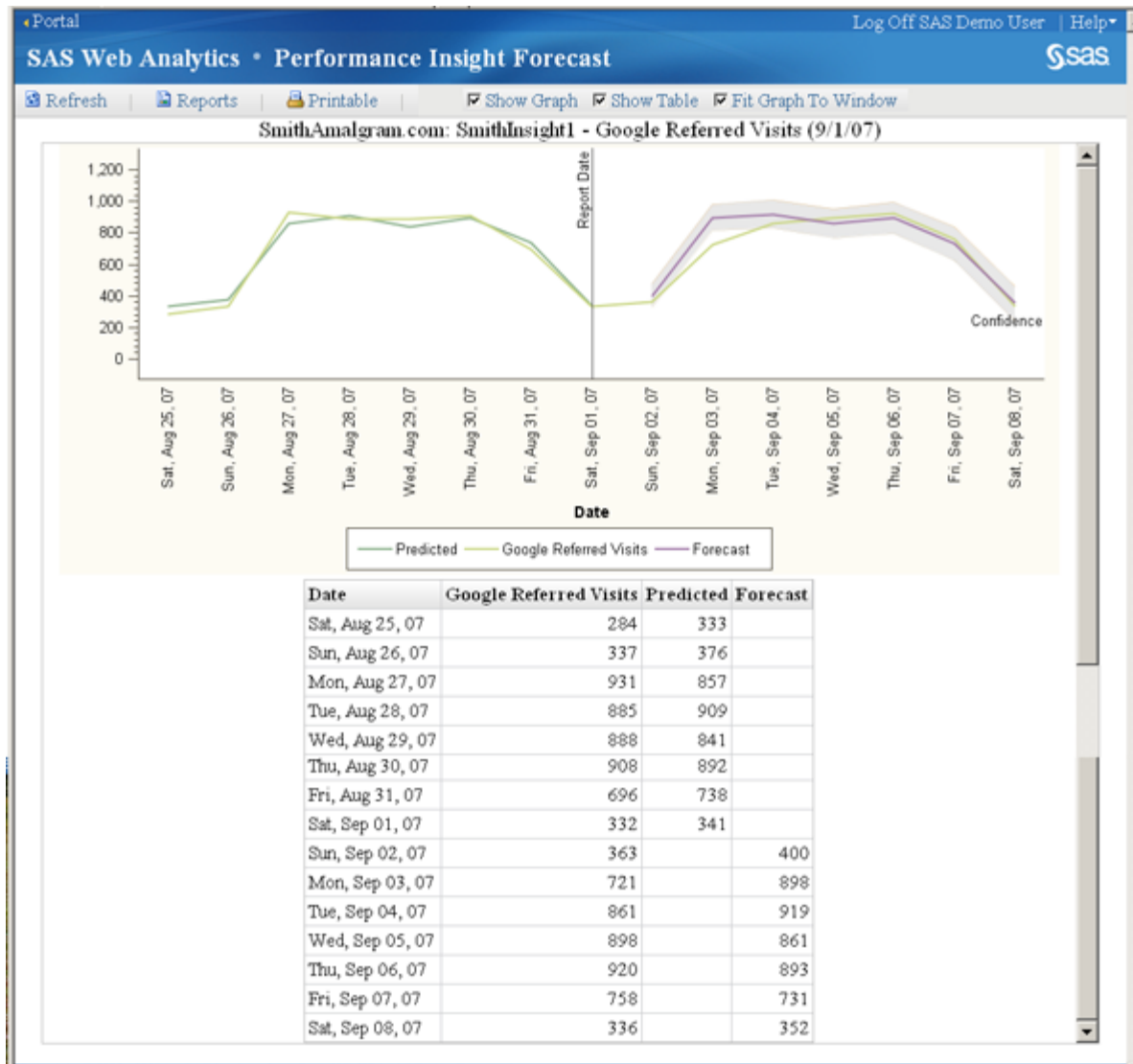
The analysis can initially be run on daily data to determine what the drivers are on different days of the week or at different times of the year. Once enough data has been collected, you can run the same analysis on weekly and monthly data.

Chapter 5
Analyze Paths That Visitors Take to Your Web Site

About Path Analysis

The purpose of path analysis is to analyze the sequence of Web pages that were visited within your Web site. A path can begin with one or more designated starting pages, and end at one or more designated ending pages. The path analysis process gathers information about which pages visitors are viewing and the order in which the pages are being seen. Path analysis can identify the sequence of page requests that have the following characteristics:

- begin with a designated start page

- end with a designated stop page

- both begin and end with designated start and stop pages, respectively

One main use of path analysis information is to help focus Web site redesign efforts to increase visitor movement to high value pages within your site.

Basic Concepts of Path Analysis

Path Analysis Concepts

Path analysis creates a report that you can use to track visitor navigation patterns from or to a specified page within your Web site.

A path is a set of pages requested by a visitor in order of viewing.

The Path interface enables the user to dynamically create and run path report definitions. A path report definition consists of the selection of a Web site, starting and ending pages, and the optional selection of one or more profiles.

A profile is a group of visitors that meet specific predefined criteria. The visitor lists are created during the Extract, Load, and Transform (ETL) process and defined by the ETL administrator or developer.

Three Types of Path Reports

You can design three types of Path reports:

Named

is a predefined report, and the results are computed dynamically when you submit a request.

Exploratory

is an ad hoc query report whose results are computed dynamically when you submit a request. This type of report can be designed using subset sample data, so that you can determine quickly if the results you see are the type of results you want. After viewing this preliminary report, you can either rerun the same analysis by using all of the data or make changes to the report parameters. Most exploratory reports are not saved, but when you create a report that you want to run again later, you can save the report definition. At this point, the report becomes Named or Active.
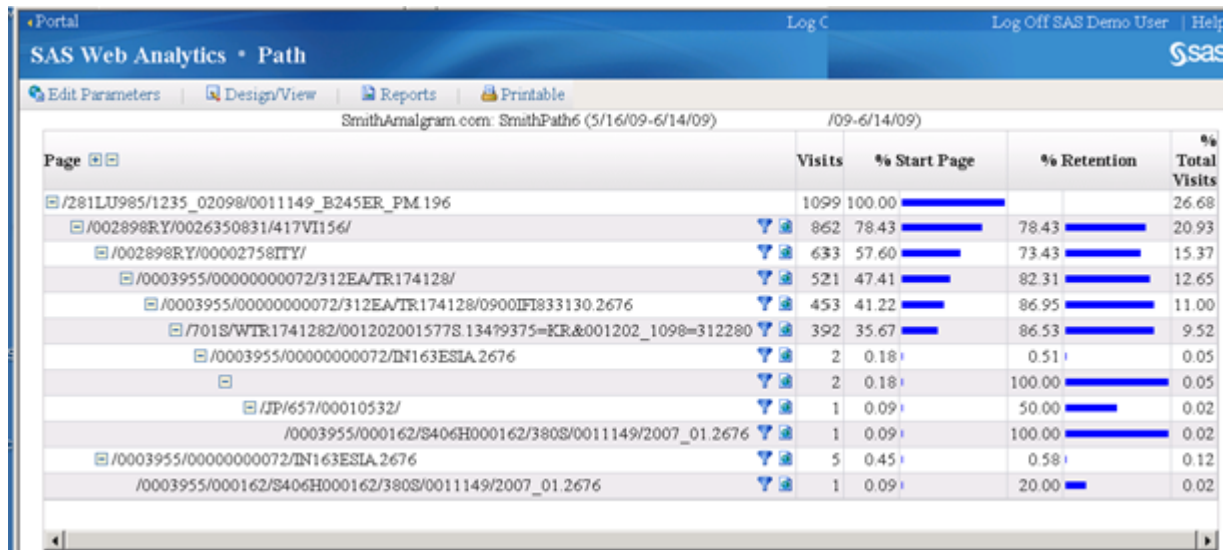
Active

is a predefined report, and the results are precomputed during ETL processing. You can use this type of report to monitor activity on a daily basis or to reduce report creation times for extremely large analytic data marts.

Example of a Path Report

A Path Report

Here is an example of a Path report:

Display 5.1 Path Report

Web Site Dates in the Report Title

The date range that is displayed in the report title shows the dates that were requested. The date range does not indicate which dates actually contributed data to the report. As long as at least one day within the date range has pathing data, the report is created and the title shows the requested dates.

Icons in the Path Report

This example of a Path report shows two columns that have different icons. You can create a funnel report by clicking the 🔻 icon. You can create a page overlay by clicking the 🌐 icon.

Output Fields in a Path Report

The following table describes the fields in the Path report:

Field	Description
Page	specifies a page in a path that was visited by visitors to the Web site.

Field	Description
Visits	specifies the number of path visits to a page, where a group of visitors advanced to this page in the path from the start page. If the page is the start page then **Visits** is the number of visitors that have viewed the page.
% Start page	specifies the percentage of visitors that advanced to this page in the path from the start page that was specified.
% Retention	specifies the percentage of visitors that advanced from the previous page in the path. **% Retention** is calculated by dividing the number of visits to the Web page by the number of visits to the preceding page.
% Total Visits	is the number of visits to a page within a path (see **Visits** above) divided by the total number of visits to a Web site for the selected date range.

Understanding Paths

The **Page** field in a Path report displays the multiple paths viewed by visitors to your site during a specific time period. The pages are displayed in an indented format so that you can see the order in which visitors traversed pages in your site. The + and – boxes enable you to expand and collapse the path. Each successive indention is the next page viewed within the path. Two paths are shown in the Path report example. Each path begins in the leftmost position in the table.

The home page is represented as a slash. The first level of indention is the second page that was visited, the third level of indention is the third page, and so on. The last level is the page at the end of the path. The number of indentions (levels of data) is related to the number that you entered in the **Path Length** field. If you enter 3 as the minimum path length, then the results will show paths that have at least three levels. If you enter 18 as the maximum path length, then paths up to eighteen levels will display. The level of indention displays as a hierarchy. Each successive path in the report contains the previous path.

After performing ad hoc exploratory queries, you might find that you want to save one of the reports. You can do this by clicking **Save** or **Save As** from the menu. One of the reasons that you might want to keep the report is for monitoring the information every day. In this case, the report would be an Active report, and will be created whenever ETL processing occurs.

Differences between Path and Funnel Output

The Path report is different from the Funnel report in the following ways:

- Each report has different presentation and aggregation strategies. For the Path report, each subpath is aggregated based on where it is within the whole path. For the Funnel report, aggregates are based on the page visits and not on where it is within the session.

- There are no one-hit sessions in a Path report, while the Funnel report includes them.

- The Path report can be limited by the **Top Paths**, **Max Visit Pages**, and **Path Length** fields, depending on whether these are entry page parameters. The Funnel report does not have these limitations.

Input Requirements for Designing a Path Report

The SAS Web Analytics Design Path Window

Before you view your report, you must enter data for the fields that display in the SAS Web Analytics Design Path window. The following display shows the input window for the Path report. A description of the fields in the **Path Properties** section follows the display:

Display 5.2 *SAS Web Analytics - Design Path Window*

Fields in the Path Properties Section of the Window

Description of Input Fields

The following table describes the input fields for the Path report:

Field	Description
Web site	is a shortened form of the term Web data mart, which refers to a data mart that contains information about a Web site's visits and related customer intelligence.
Name	specifies the name of the report.
Path Length	specifies the minimum and maximum length of paths that you want to track. The smallest minimum path length is 2; the largest maximum path length is 20.
Top Paths	specifies the number of paths that are returned to the user based on the number of visitors viewing a specific path. The range for this field is 1–100.
Max Visit Pages	specifies the page request threshold. Visits with more than this number of page requests are excluded from the results. The range for this field is 20–150.
Is Active?	specifies a predefined report that runs during ETL processing. This field applies only to reports that you save.
Is Entry?	specifies that the starting page must be the first page within a visit. This field applies to all three types of paths: named, exploratory, or active.
Sample Data?	specifies that a subset of data be used to create your report. Exploratory path requests in particular benefit from using sample data because the results are produced much more quickly.
Profiles	specifies a set of predefined visit filters. Profiles are used to create path reports for specific visit populations.
Profile Operator	controls how the profiles are used to filter visits that are in the analysis data. **And** indicates that a visit must be associated with all of the profiles. **Or** indicates that a visit must be associated with at least one of the profiles.

Set the Top Number of Paths That Are Displayed

Top Paths specifies the number of paths that are displayed within a report based on the number of visits. If you view your output and find that the value for **Top Paths** is too low (not enough paths are displayed) or too high (too many paths are displayed), you can change **Top Paths** and view an updated report.

Select a Value for the Max Visit Pages Field

The **Max Visit Pages** field sets a limit on the number of page requests that a visit can have before it is excluded from the analysis. If the number of page requests exceeds the value in **Max Visit Pages**, then the Path report does not include any data from that visit in the analysis. For example, if you set **Max Visit Pages** to a value of 100, you are setting the maximum visit pages requested size to 100. If the number of page requests exceeds 100, then SAS Web Analytics does not use any of the data because it assumes that the visit was the result of an automated process (such as a spider), and not a human visitor.

Selecting Profiles

Categorize Visits by Using Profiles

Profiles are predefined filters that are used to group visits for use within path and funnel analysis. A profile can be programmed to key off of any event that happens within a visit. For example, a profile could have a category such as "visits that are driven to a site by the Google search engine." If you use this profile in a request, the analysis results that you view will be automatically limited to visits that match the category. In this case, the profile matches visits that were sent to the site by Google.

It is important to set up your use of profiles carefully, keeping in mind the relationship among the profiles. In the example of the Path report, the following three profiles have been defined:

• The Google profile contains all visits that were referred to a site by Google.

• The Yahoo profile contains all visits that were referred to a site by Yahoo.

• The Search Engines profile contains all visits that were referred to a site by any search engine.

Selecting the Search Engines profile along with either the Google or Yahoo profile does not include any additional visits because Google and Yahoo visits are search engine visits. You need to decide which profiles or profile combinations you want to use as filters.

If you include Google and Yahoo as the two profiles, and use the **Or** profile operator, then the result will be meaningful because the visit will be filtered through either the Google profile or the Yahoo profile. If you use the **And** profile operator, no results will be returned because these profiles are mutually exclusive. That is, you can either come to a site through Google or Yahoo, but not through both search engines at the same time.

You need to evaluate the relationship among the profiles that you define to determine whether you want to include visits in multiple profiles. Part of this evaluation depends on how you define your profiles. The other part depends on whether you select the **And** or **Or** profile operator.

If your ETL administrator creates profiles for a Web site, these profiles will be displayed in the **Profiles** section of the window whenever you use the Web site to design a new Path report.

Select the Profile Operator

Profiles are used in conjunction with the **Profile Operator**, which directs the relationship among the profiles. When the **And** operator is in effect, a visit is included only if it fits all of the profiles on your list. When the **Or** operator is in effect, a visit is included if it occurs within any of the profiles in your list. You can select any of the profiles that are listed in the **Profiles** section of the window, and then select an operator.

How Profiles Are Implemented

You select profiles from a list of available profiles that are created during the ETL process. These profiles act like filters, and are displayed in the Profiles section of the SAS Web Analytics Design Path window.

Add Start and End Page Metrics

The path analysis tracks how groups of visitors move through a Web site. The starting page identifies the starting point for a path, and the ending page identifies the last page within the path. The number of intervening page requests is controlled by the **Path Length** field.

It is important to know the start page that a group of visitors viewed if you want to track where the visitors first entered a Web site, regardless of the destination, as well as to track subsequent visits to other pages. It is important to know the end page that a group of visitors viewed if you want to know the destination, regardless of the path taken to that destination. Selecting both start and end pages tracks the path of a visitor up to the limits you set in **Path Length**. If you know the path that visits follow, you can alter your Web site so that visitors are less likely to leave the path.

An e-mail campaign is an example of capturing information by using a start page. When a customized link is included in an e-mail, you want to know how many visitors actually click the link. The start page would be the page that the e-mail links to. You would also want to click the **Is Entry?** field to count the visitors who accessed the start page through the e-mail message.

Change the Input Parameters for a Path Report

After you view your report, you can change the input parameters in the following ways:

- Select **Design** from the upper-left menu bar of your report.

  The **Path Properties** section and the **Add Pages** sections of the Design Path window show the information that you entered when you last updated the report's definition. Change any information in the fields, and click **View** to display a new report.

- To change the start date of your report, click **Edit Parameters** on the menu bar and select a new date. No other fields in your report will change.

  Click **View** to display the report.

- To delete a metric that you added, click the icon in the first column of the metric.

Design a Path Report

To design a Path report:

1. From the **Reports** tab in the SAS Web Analytics - Reports main window, select **New ⇨ Path**.

2. Select a Web site by clicking the down arrow to the right of the **Web site** field.

3. To save a report, enter a name in the **Name** field. Alternatively, you can leave the **Name** field blank, view your report, and then click **Save As**.

4. Select a path length.

Select a minimum path length (not less than 2) from the left menu, and select a maximum path length (not greater than 20) from the right menu. The maximum path length must be equal to or greater than the minimum path length.

5. In the **Top Paths** field, enter the number of paths that you want returned to you.

6. In the **Max Visit Pages** field, enter a value that specifies the maximum number of page requests that a visit must have in order to be included in the analysis.

7. Check the **Is Active?** box to run a predefined report, which runs during ETL processing.

8. Click the **Is Entry?** button to specify that the start page must be the first requested page in a visit.

9. From the **Profiles** window, select one or more profiles.

10. In the **Profile Operator** field, click **And** or **Or**.

11. To add start and end pages, click **Add Pages**.

12. To select one or more pages from the Available Pages window:

    • Select Web pages from the list.

    • Click **Add Selected Pages**.

    • Click **Done**.

      The pages you select are listed in the **Start Pages** and **End Pages** sections of the previous window, the SAS Web Analytics - Design Path window. For more information, see "Add Start and End Page Metrics" on page 64.

13. In the Available Pages window:

    • Check the **Show Page URL** box to show the complete URL (including protocol and domain) for the pages in the list.

    • Select a domain from the **Domain** field by clicking the arrow that is located to the right of the field. The domain you select restricts the list of URL pages to those that are found in the domain.

    • (Optional) In the **Find** field, enter a string that you want to search for, and then click **Search** to begin the search.

    • Click the **Previous** and **Next** buttons to display the previous and next lists of URLs. You can also scroll through the list using the scroll bar on the right side of the display.

    • To find a Web page within a specific domain, select a domain from the **Domain** field, and then enter your search criteria in the **Find** field. Click **Search**. The string you searched for appears at the top of the list. If you want to add more pages to your report and you click the **Add Selected Pages** button in the SAS Web Analytics - Design Path window, the string you searched for last remains displayed in the **Find** field. Delete the string and add another string to begin a new search.

14. To delete a start page or an end page, click the ⚙ that is located to the left of the page you want to delete.

15. To view the report, click **View** from the menu.

16. To print the report, click **Printable** from the menu.

17. To save your path definition, click **Save** or **Save As** from the menu.

If SAS Returns No Output

If SAS returns no output, then you might not have specified valid parameters for your Web site. At the top of the page, click the ⚠ icon that is next to the name of the Web site. A message similar to this message appears:

```
There are no paths for your designated start pages, end pages, and parameter
settings. Please choose different start and end pages and/or adjust parameter
settings and re-run.
Please contact web analytics administrator for assistance.
```

Follow the instructions in the message and view the report again.

Select a Funnel Report or a Page Overlay from a Path Report

From the Path report output, you can click the funnel icon or the page overlay icon to view your results in a different way. When you click the 🔽 icon associated with a Web page, a representation of your output in Funnel format displays. When you click the 🌐 icon associated with a Web page, metrics associated with specific features display on top of the page you clicked.

Chapter 6
Direct Report Data

About Funnel Reporting

Web sites are designed to lead visitors through a series of Web pages to a destination Web page such as an advertisement, a news article, or a purchase page. You can analyze this traffic over a period of time, and change the design of your Web site to better funnel visitors to the desired page.

A Funnel report can be designed to track the path of a visitor to a specific page within the Web site. By identifying prospects and non-prospects, a Funnel report shows how traffic is routed from node to node. Only visitors described as prospects enter the first node of the funnel. From there, a distinction is made between prospects and non-prospects.

Basic Concepts of Funnel Design

When you design a funnel, you are actually designing a funnel definition. A funnel definition contains a sequential list of Web pages that constitutes a path visitors can take through a Web site. A funnel definition is defined by your system administrator, but you can change some of the parameters when you design a funnel report.

If you have the appropriate permissions, you can save the funnel definition and run reports by using this definition with different data. Designing a funnel enables you to track the number of visitors who begin on a particular Web page and end at a desired Web page within the site. You can design a funnel that influences the path that a visitor takes. The order of pages in the path is critical. When you design a funnel report, you must select a start page and an end page, as well as all of the intermediate pages visitors are likely to visit.

The funnel tool, which is designed to funnel traffic through a series of Web pages, analyzes Web traffic as it relates to arrival at a destination. It does this by attaching a visitation history to a predefined path.

Three Types of Funnels

SAS Web Analytics supports three types of funnels:

*   Active

*   Named

*   Exploratory

An active funnel is predefined, and the results are precomputed periodically. This processing reduces the amount of time that is needed to create the funnel. You can use this type of funnel to generate a report that monitors activity on a daily basis. You can save an active funnel definition and run the report at a later time. After a funnel is declared active, only data that is loaded after that date is considered for a funnel.

A named funnel is predefined, and the results are computed dynamically when you submit a request. You can save a named funnel definition and run the report at a later time.

An exploratory funnel must be fully defined and executed by you. If you want to save the funnel, the funnel becomes a named funnel, and you can open, modify, or rerun the funnel at a later time.

Designing a Funnel: An Example

If you are a manufacturer and you have one item for sale through your Web site, you can design a funnel definition to help you keep visitors on your Web site so that they will purchase the item. To do this, assume you have three Web pages:

*   Page1 (www.example.com)

*   Page2 (www.example.com/item1)

*   Page3 (www.example.com/purchase)

Page1 (www.example.com) is the home page; page2 (www.example.com/item1) is an informational page about the item; and page3 (www.example.com/purchase) is the order page for the item. These Web pages are referred to as funnel pages. Each page is further named a node because the order of the pages is critical. Information about visitors who proceed from page 1 to page 3 is more important than information about visitors who proceed from page 3 to page 2. The goal for this funnel is for the visitor to go from the first funnel node and travel through the funnel.

Each pair of abutting funnel nodes within a particular funnel can be defined as adjacent or nonadjacent. Adjacent nodes require sessions to progress immediately from one funnel

node to the next in order to remain in the funnel. If this progression fails, the nodes are considered exits. Conversely, nonadjacent nodes can visit any number of pages in between funnel node hits and remain in the funnel.

You can change the preceding example by adding another item for sale, and adding another Web page to your site. The new page is called item2, which is an informational page about item2. Page 1 now has two informational links on it—one for item1 and another for item2. Page 2 has a link to item2. With this scenario, a visitor might travel the following path:

1. Begin at www.example.com.

2. Click www.example.com/item2.

3. Decide this item is not acceptable and proceed to click www.example.com/item1.

4. From www.example.com/item1, click www.example.com/purchase to purchase the item.

In the original example, if the link between www.example.com and www.example.com/item1 is adjacent, then the results will be limited to those buyers who proceed directly from www.example.com to the purchase page. Because www.example.com and www.example.com/item1 are adjacent, a visitor (prospect) leaves the funnel after proceeding to www.example.item2 instead.

Conversely, if nodes www.example.com and www.example.com/item1 are not adjacent, the funnel definition will track visitors from page to page, regardless of whether visitors visit intervening pages. Visitors can visit any number of pages between www.example.com and www.example.com/item1 and still remain in the funnel. The results of the funnel are limited to purchasers, regardless of the order of pages they visited.

Advantages of Using a Funnel Report

You can open two browsers and run the same funnel side by side by using different date ranges for each report. You can use the funnel to analyze how traffic changes over time, with or without subtle changes to the site.

The funnel chart breaks down the top pages visited before the funnel pages, and the top destinations. You have access to information that tells you where visitors came from and where they are going. With this information, you can try to change the sources or destinations to send the visitors back into the funnel. For example, if the top referring page to www.xyz.com is a search engine such as Yahoo, then you could advertise more heavily on yahoo.com to attempt to gain more visitors who search for a given keyword.

Example of a Funnel

Here is an example of a Funnel:

Display 6.1 *Funnel*
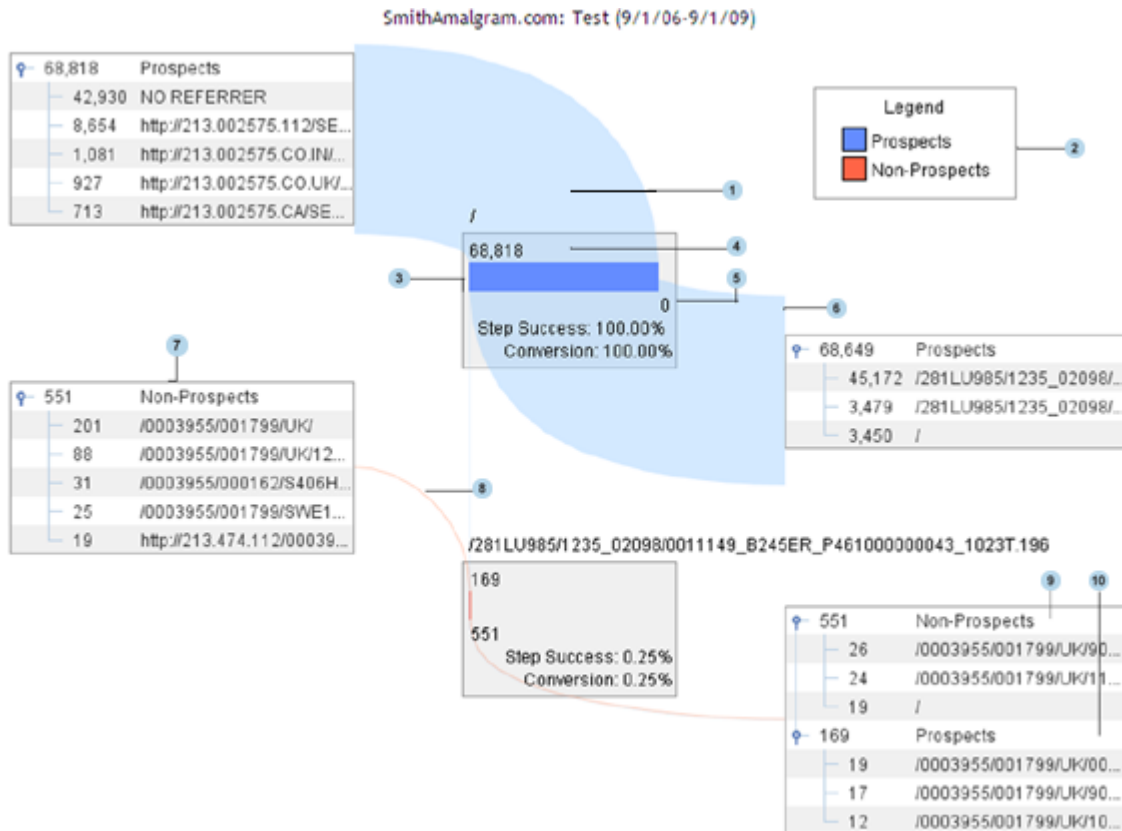
The following items correspond to the numbered items in the Funnel report:

1. This line represents the places where the 68,818 incoming prospects are coming from. The slash is the name of the page; in this case, the root. The slash is the first funnel node.

2. **Prospects** identifies visitors who enter a funnel on the funnel entry page, and remain until they have completed or exited the funnel, or closed the browser. **Non-Prospects** identifies visitors who enter a funnel at a level other than the funnel entry page, and then complete or exit the funnel, or close the browser.

3. Each box represents a funnel node. This is the first node in the funnel.

4. This number, 68,818, is the number of incoming prospects.

5. This number is the number of incoming non-prospects. This value is always zero for the first node.

6. This line represents the places where the prospects go after they leave the node. In this example, 68,649 (from a total of 68,818) prospects leave the funnel and go to locations that are listed in the accompanying box.

7. These are the top five referring pages. (You select the top number of referring pages before you create the funnel.)

8. This line represents the 551 non-prospects that flow into the second funnel node.

9. Five hundred fifty-one (551) non-prospects left the funnel and went to the locations that are listed in the box.

10. One hundred sixty-nine (169) prospects went through the first funnel node, proceeded to the second funnel node, and then went to the locations that are listed in the box. These prospects did not proceed past the second funnel node. One reason for this departure could be that the second funnel node is the last node of the funnel.

Differences between Funnel and Path Output

The Funnel report is different from the Path report in the following ways:

- Each report has different presentation and aggregation strategies. For the Path report, each subpath is aggregated based on where it is within the whole path. For the Funnel report, aggregates are based on the page visits and not on where it is within the session.

- There are no one-hit sessions in a Path report, while the Funnel report includes them.

- The Path report can be limited by the **Top Paths**, **Max Visit Pages**, and **Path Length** fields, depending on whether these are entry page parameters. The Funnel report does not have these limitations.

Input Requirements for Designing a Funnel

The Funnel Properties Window

Before you view your report, you must enter data for the fields that display in the Funnel Properties window. The following display shows the input window for the Funnel report. A description of funnel properties in the Design Funnel window follows the display:

Display 6.2 *Design Funnel Properties Window*

Fields in the Funnel Properties Window

Description of Input Fields

The following table describes the input fields for the Funnel report:

Field	Description
Web Site	refers to a collection of related Web pages, or to the data that is stored within the Web site's data mart, which contains Web log information.
Name	specifies the name of the report.
Prospects Label	identifies a visitor who enters a funnel on the funnel entry page, and remains until the visitor has completed or exited the funnel, or closed the browser. (You can replace the term **Prospects** with a term of your choice.) The following special characters in the prospects label are not valid: \ / ' < >

Field	Description
Non-Prospects Label	identifies a visitor who enters a funnel at a level other than the funnel entry page and then completes or exits the funnel, or closes the browser. (You can replace the term**Non-Prospects** with a term of your choice.) The following special characters in the non-prospects label are not valid: \ / ' < >
Is Active?	specifies a predefined report that runs during ETL processing. Keeping your funnels active improves system performance.
Profiles	filter the data that is used to produce interactive analysis results.
Profile Operator	controls how the profiles are used to filter visits that are in the analysis data. **And** indicates that a visit must be associated with all of the profiles. **Or** indicates that a visit must be associated with at least one of the profiles.
Funnel Levels	lists the pages in your funnel according to the position you assign. The following special characters are not valid in a **Funnel Levels** name: \ / ' < >

Adjacent and Non-Adjacent Paths

When you click the **Add Pages** button, you can select paths for your Funnel report. The paths that you select can be designated as adjacent to one another or non-adjacent, depending on how you design the funnel. If paths are adjacent, the funnel tracks visitors who proceed to the target destination without making intervening stops. If paths are non-adjacent, the funnel tracks visitors who proceed to the target destination even though they make intervening stops. Non-adjacent paths include all paths, even those that are designated as adjacent.

Selecting Profiles

Filtering Visits by Using Profiles

Profiles filter the data that is used to produce interactive analysis results. A profile can be programmed to key off of any event that happens within a visit. For example, a profile could have a category such as "visits that are driven to a site by the Google search engine." If you use this profile in an interactive request, the analysis results that you view will be automatically limited to visits that match the category. In this case, the profile matches visits that were sent to the site by Google.

It is important to set up your profiles carefully, keeping in mind the relationship among the profiles. For example, if you are directed to a site through Google, then your visit will be characterized as being part of the Google profile. If you also set up a profile called "Search engines," and choose the **And** profile operator, then your visit is included in both the Google and Search Engines profiles. This might not be what you intended. The resulting information is not meaningful. You need to decide which profiles or profile combinations you want to use as filters.

If you include Google and Yahoo as two of the profiles, and use the **Or** profile operator, then the result will be meaningful because the visit will be filtered through either the Google profile or the Yahoo profile. If you use the **And** profile operator, the resulting information will not be meaningful because these profiles are mutually exclusive. That is, you can either come to a site through Google or Yahoo, but not through both search engines at the same time.

You need to evaluate the relationship among the profiles that you define to determine whether you want to include your visits in multiple profiles. Part of this evaluation depends on how you define your profiles. The other part depends on whether you select the **And** or **Or** profile operator.

If your administrator assigns profiles to your Web site, these profiles appear in the **Profiles** window whenever you use the Web site to design a new Funnel report.

Selecting the Profile Operator

Profiles are used in conjunction with the **Profile Operator**, which directs the relationship among the profiles. The **And** operator is all inclusive. When this operator is in effect, all of the profiles are used to filter the incoming data. The **Or** operator is more flexible. When this operator is in effect, a visit is included if it fits at least one profile in your list. You select one or more profiles that are listed in the **Profiles** section, and then select an operator.

How Profiles Are Implemented

The administrator defines the profiles, and the profile definitions are processed during ETL processing. You are then able to select the profiles from a list of available profiles that automatically appear in the **Profiles** section of the Funnel Properties window.

Change the Input Parameters for a Funnel Report

After you view your report, you can change the input parameters in the following ways:

- Select **Design** from the upper-left menu bar of your report.

  The **Funnel Properties** and the **Add Pages** sections of the Design Funnel window show the information that you entered when you last updated the report's definition. Change any information in the fields, and click **View** to display a new report.

- To change the start date of your report, click **Edit Parameters** on the menu bar and select a new date. No other fields in your report will change.

  Click **View** to display the report.

- To move a funnel level up or down, click the ▶ icon to select a funnel level and then click **Move Up** or **Move Down**.

- To delete all of the funnel levels, click **Clear**.

- To delete a metric that you added, click the ✖ icon in the second column of the metric.

Design a Funnel Report

To design a Funnel report:

1. Log on to SAS Web Analytics.

2. From the **Reports** tab in the SAS Web Analytics Reports main window, select **New** ⇨ **Funnel**.

   The SAS Web Analytics - Design Funnel window appears:

3. Select a Web site by clicking the down arrow to the right of the **Web site** field.

4. In the **Name** field, enter a name for your report.

5. In the **Prospects Label** field, enter a label for prospective customers.

6. In the **Non-Prospects Label** field, enter a label for visitors who are not considered prospects.

7. Check the **Is Active?** box to run a predefined report that runs during ETL processing.

8. From the **Profiles** window, select one or more profiles.

9. In the **Profile Operator** field, click **And** or **Or**.

10. To add start and end pages, click **Add Pages**.

    The Available Pages window opens.

11. To select one or more Web pages from the Available Pages window:

    • (Optional) Check the **Show Page URL** box to show the complete URL, including protocol and domain, for the pages in the list.

    • Select the Web pages you want to use from the list that appears.

    • Click **Add Selected Pages**.

      You can use the **Previous** and **Next** buttons to display more URLs. Alternatively, you can use the scroll bar.

- To find a Web page within a specific domain, select a domain from the **Domain** field by clicking the arrow to the right of the field.

  The domain you select restricts the list of URL pages to those that are found in the domain.

- (Optional) In the **Find** field, enter a string that you want to search for, and then click **Search**.

  The pages that contain the string appear in the list. Make your selection from this list.

- Click **Done** to add pages to the Funnel report.

  The pages you select are listed in the **Funnel Levels** section of the SAS Web Analytics - Funnel Design window.

12. To move a row up or down, click the arrow ⬏ icon that is located at the beginning of the row, and then click **Move Up** or **Move Down**.

13. To delete all of the funnel paths, click **Clear**.

14. To delete a start page or end page, click the ✖ icon to the left of the page you want to delete.

15. To designate whether a node is adjacent to another node, click a cell in the **Adjacent?** column and select **Yes** or **No**.

16. To view the Funnel report, click **View** from the menu.

17. To print the Funnel report, click **Printable** from the menu.

18. To save your report, click **Save** or **Save As** from the menu.

Chapter 7

Overlay Pages to Find Visitor Counts for a Specific Link

About the Web Page Overlay Feature

The Web Page Overlay feature displays a site's Web page with each link's associated metrics overlaid on the page. You can access the Web Page Overlay feature by clicking the **Page Overlay** tab. You can also view a page overlay from a Path or Funnel report. A new Web page overlay is created each time you use this feature. No Web page overlays are saved.

In the Web page overlay, you can position your cursor over a highlighted area and display the following metrics:

•   the number of clicks on the link

•   the number of unique visitors who clicked on the link

•   the visit count

Your system administrator can add metrics to the list so that you can view those metrics that are meaningful to your site.

A heat map shows the amount of activity for a given path. The more intense the hue, the greater the activity.

Creating a Web Page Overlay

A Web Page Overlay

The Web Page Overlay feature displays a Web page that contains ⊞ icons to indicate which links on the page were accessed. Clicking an icon displays information about the link.

Items on the Menu Bar for a Web Page Overlay

The menu bar in the Web Page Overlay feature contains the following items:

Item	Description
Edit Parameters button	enables you to change the parameters of your report.
Printable button	enables you to print the report.
Heat Indicator menu	enables you to select the metric that controls the intensity of the heat maps.
Heat Color menu	enables you to select the color of the heat map.
Show menu	specifies the number of pages to show. The options are **All**, **Top 10**, and **Top 25**.
Referrers button	displays a list of referrer pages, based on the value of **Show**.
Clicks button	displays a list of the most frequently accessed pages, based on the value of **Show**.

Identify Data in a Web Page Overlay

At the top of the Web Page Overlay is the name of the Web site you used for the overlay, the path, and the dates you selected from the Web site. The profiles that you used to filter the report are listed below the Web site name.

The Web Page Overlay has a heat map feature that shows metrics about the Web page, such as the number of unique visitors who visited the page. The ⊞ icon represents the heat map, and is assigned a color. You can select a color scheme for your heat map by choosing a color from the **Heat Color** menu. The more intense the color, the greater the value of the metric. The menu to the right of the **Heat Map Indicator** field enables you to select the metric that drives the page overlay. If a selectable feature on the overlay page does not have an associated heat map, then no one clicked that link on the Web page. A window similar to the following appears when you move your cursor over a heat map icon:

Display 7.1   Heat Map Metrics Window

/jobs/corporate/index.html		
Click Count	127	8.73%
Unique Visitor Count	123	8.45%
Visit Count	126	8.66%

The heat map icon appears as close as possible to the location of the field that contains the overlaid data. When you position your cursor over the icon, a window appears that displays the URL for the link, along with three metrics: click count, unique visitor count, and visit count. (Your system administrator can add to or change these metrics.) The window is shaded, as is the item associated with it, so that you can see a visual connection.

The banner line in the window lists the URL for the link. The three variables show the number of clicks and the percentage of clicks per visit.

When you position your cursor over a ⊞ icon, you can click the icon and the associated window remains open. You can permanently open the windows for several icons and compare their metrics. Click the icon of a permanently open window to close it.

If you select **Referrers** or **Clicks** at the top of the menu bar, a left pane and a right pane open that list the referrers and clicks, respectively, based on the value of **Show**.

Print the Web Page Overlay

Click **Printable** in the page overlay window to print the overlay. Note that how the Web page overlay is rendered depends on the browser you are using. With some browsers, the printed output does not format as expected.

Advantages of Using a Web Page Overlay

One of the advantages of using the Web Page Overlay feature is that you can view where the majority of actions occurred, and thereby assess the effectiveness of your Web page. For example, if you find that you have more heat map clusters at the top of the page than at the bottom, your visitors might not be seeing the bottom of your Web page. You can redesign the page to account for this problem by including redundancy in your design.

Input Requirements for Generating a Web Page Overlay

The Edit Parameters Window for a Web Page Overlay

Before you view the page overlay, you must enter data for the fields that appear in the Edit Parameters window:

Display 7.2 *Edit Parameters Window*

Fields in the Edit Parameters Window for a Web Page Overlay

Description of Input Fields
The following table describes the input fields for a Web Page Overlay:

Field	Description
Start Date	specifies the beginning date for the page overlay.
End Date	specifies the ending date for the page overlay.
Web site	specifies a collection of Web pages, or the data that is stored within the Web site's data mart, which contains Web log information.
URL	specifies a Uniform Resource Locator (URL) for the overlay page.
Profiles	specifies a way to categorize visits. Profiles filter the data that is analyzed to produce the results.
Profile Operator	controls how the profiles are used to filter visits that are in the analysis data. **And** indicates that a visit must be associated with all of the profiles. **Or** indicates that a visit must be associated with at least one of the profiles.

Note: You must have some knowledge about the URLs that make up your Web site so that you can choose a meaningful URL for your overlay page.

Change Input Parameters for a Web Page Overlay

After you view the Web Page Overlay, you can change the input parameters by selecting **Edit Parameters** from the upper-left side of the menu bar:

- To change the date range for the Web site, use the calendar icons.

  To generate a report you must use valid dates for your Web site. To determine the valid date range for the Web site you have chosen, click the **Admin** tab and then click **Web Sites**. The names of all the Web sites to which you have access appear. The valid dates for each Web site are listed in the window.

- To change the URL, click the 🔍 icon and select another URL.

- To change a profile operator, click **And** or **Or**.

After you change the input parameters, click **OK** to save your changes. A new report is automatically created.

Design a Web Page Overlay

To design a Web Page Overlay:

1. In the SAS Web Analytics main window, click the **Page Overlay** tab.

   The Edit Parameters window of the Web Page Overlay appears.

2. Select the start date and end date for which you want to generate the page overlay.

   Enter a date or use the calendar located to the right of the **Start Date** and **End Date** fields. These dates must be valid dates for your Web site.

3. Select a Web site by clicking the down arrow to the right of the **Web site** field.

4. Click the 🔍 icon to the right of the **URL** field to access a list of URLs that you can select.

   In the Available Pages window that opens, perform one or more of the following tasks:

   - Click the **Show Page URL** field if you want the entire URL, including the protocol and domain, to display.

   - Select a URL on which the page overlay will be based.

   - Click the down arrow in the **Domain** field and select a domain for the URL.

   - To search for a string in the Available Pages window, enter the string in the **Find** field, and then click **Search**.

     The value in the **Find** field remains until you delete it.

5. After you select a URL, click **OK**.

6. Click **OK** again in the Edit Parameters window to generate the Web page overlay.

Chapter 8

Manage Campaign Goals and View Web Site Dates

Admin Tab

Clicking the **Admin** tab displays three tabs that enable you to perform the following tasks:

- edit search engine bid management goals

- manage campaign goals

- view the start and end dates for the Web sites that you have access to

Edit Search Engine Bid Management Goals

Search engine bid management includes the reporting, updating, and maintenance of an AdWord's bids, ROI, impressions, and cost. The Edit Search Engine Bid Management Goals window lists the goal values of selected URLs and indicates whether a search is a paid search.

The Edit Search Engine Bid Management Goals window opens automatically when you click the **Admin** tab. In this example, the window is already populated with data:

Display 8.1 *Edit Search Engine Bid Management Goals Window*

The Edit Search Engine Bid Management Goals window contains the following fields:

Field	Description
Web site	specifies a collection of related Web pages, or the data that is stored within the Web site's data mart, which contains Web log information.
URL	specifies a Uniform Resource Locator (URL) that is used by a Web browser or other software application to access or identify a resource, such as a Web page, on the Internet or on an intranet.
Goal Value	specifies the numeric value of a goal you want to reach for a specific page. You can change the value in the field by clicking the cell and entering a new value.
Paid Search	specifies whether the search is a paid or non-paid search. You can change the value of the field by clicking the cell, and then clicking **Yes** or **No**.

To add a goal page to your report, click **Add Page Goal** in the lower left corner of the window. The Available Pages window appears. In the following example, the **Domain** and

a URL have been selected. A goal value was entered and the **Is Paid Search?** field is checked:

Display 8.2 *Available Pages Window*

In this window, you can check the **Show Page URL** box to display the full URL, including the domain. You can add a goal page to your report by selecting a page, or by searching for a particular URL in the list that displays. Enter a goal value and check the box if the search is a paid search.

You can also make changes to the information in the Edit Search Engine Bid Management Goals window directly:

- To delete a URL from that window, click the ⊠ icon to the left of the URL.

- To change the goal value of a URL, click the cell that contains the current value, and then enter another value.

- To identify the search as a paid search, check the **Is Paid Search** box. Deselect the box if the search is not a paid search.

Managing Campaign Goals

About Managing Campaign Goals

Campaign goal management, which is part of Customer Intelligence Integration, enables you to associate the SAS Marketing Automation campaign responses with Web site

behavior. SAS Web Analytics enables you to associate a set of goal pages and a condition with a specific SAS Marketing Automation campaign response, which is defined by a response code. When a visit to your site is referred by a SAS Marketing Automation campaign, and if the visit satisfies a defined goal, then the respective response code is returned to the Customer Intelligence common data mart as the response history.

This feature of SAS Web Analytics is available only when SAS Marketing Automation 5.3 is licensed and installed in the same SAS 9.2 environment.

Edit Campaign Goals

You access the Edit Campaign Goals window by clicking the **Campaign Goal Management** tab from the **Admin** tab. The following display shows the Edit Campaign Goals window. Four campaign goals are listed. The goal pages for the selected campaign goal, SmithCampaign3, are displayed in the **Goal Pages** section of the window:

Display 8.3   Edit Campaign Goals Window
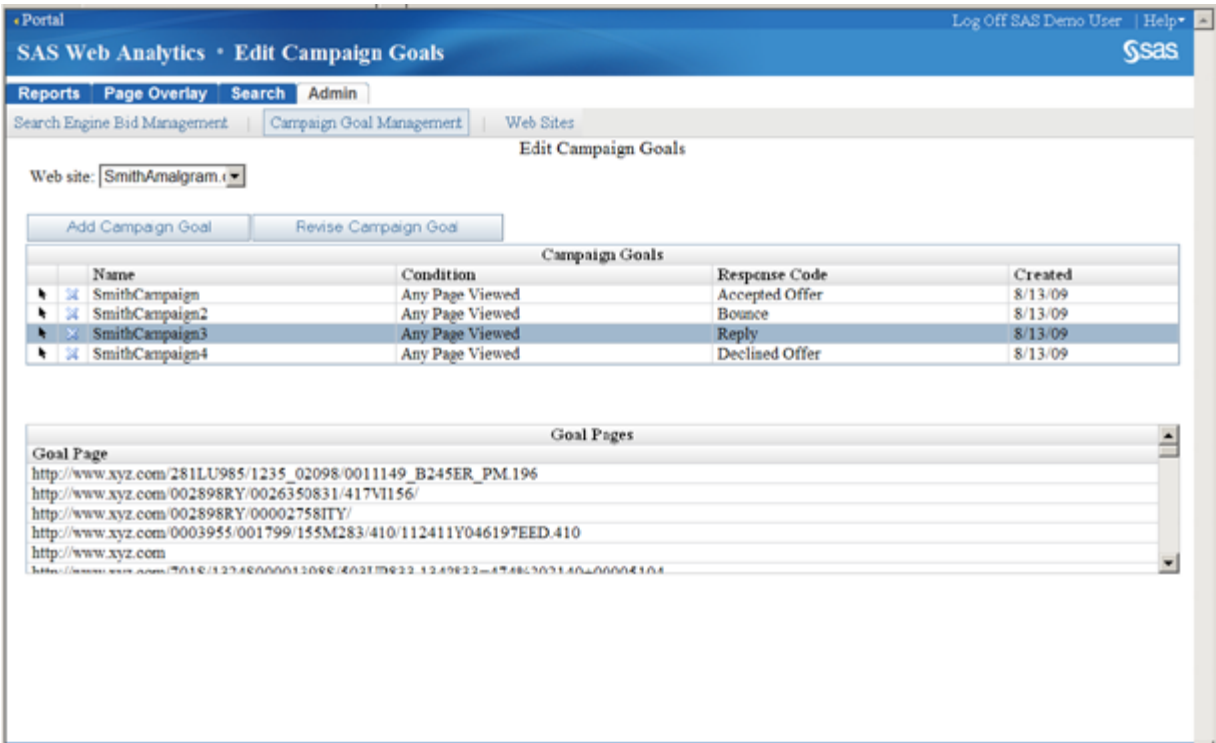
To display the goal pages for a campaign goal, click the 🐦 icon at the beginning of a goal line. Note that only active goals are displayed.

To delete a campaign goal, click the ✖ icon.

The Edit Campaign Goals window contains the following items:

Item	Description
Web site	specifies a collection of related Web pages, or the data that is stored within the Web site's data mart, which contains Web log information. You can switch between Web sites. When the Web site is changed, the **Campaign Goals** section shows the campaign goals that are defined for that Web site.
Add Campaign Goal tab	opens the Add Campaign Goal window, which enables you to add a campaign goal for the currently selected Web site. This tab is always enabled.
Revise Campaign Goal tab	opens the Revise Campaign Goal window, which enables you to revise the currently selected campaign goal. This tab is enabled only when a campaign goal is selected.
Name	specifies the name of a campaign goal. A campaign goal name can contain a maximum of 32 characters, must start with a letter or an underscore, and can contain only English letters, numbers, and underscores. Using an underscore as the first character is not recommended.
Condition	specifies whether reaching the goal was successful. Select **Any Page Viewed** if you want any page in the goal to be viewed for success. Select **All Pages Viewed** if you want all of the pages in the goal to be viewed for success.
Response Code	specifies the campaign response code that is retrieved from SAS Marketing Automation.
Created	specifies the creation date of the campaign goal.
Goal Page	specifies a page that lists the goal value for a selected campaign.

Add a Campaign Goal

Clicking **Add Campaign Goal** opens the Add Campaign Goal window. This window enables you to add a campaign goal for the currently selected Web site.

The following is an example of the Add Campaign Goal window with the **Response Code** menu displayed. Note that the items in the **Response Code** menu are examples of what might be returned by SAS Marketing Automation. The codes are administered using the SAS Marketing Automation system for the Web campaign, and that system is queried for the list of codes.

Display 8.4 *Add Campaign Goal Window*

The Add Campaign Goal window contains the following fields:

Field	Description
Name	specifies the name of the campaign goal.
Condition	specifies whether reaching the goal was successful. Select **Any Page Viewed** if you want any page in the goal to be viewed for success. Select **All Pages Viewed** if you want all of the pages in the goal to be viewed for success.
Response Code	specifies the campaign response code that is retrieved from SAS Marketing Automation.
Selected Pages	specifies pages that you select for your campaign goal.
Show Page URL	specifies that the entire URL, including the domain, be displayed.
Domain	specifies a database of users that was set up by an administrator by using a specific authentication provider such as Lightweight Directory Access Protocol (LDAP) or a host operating system. Domain names should be unique throughout your organization.
Find	specifies that you can enter a value to search for in a URL.

Revise a Campaign Goal

Clicking **Revise Campaign Goal** opens the Revise Campaign Goal window. All of the fields are initialized to the values of the currently selected campaign. You can change any of the properties in this window. This tab is enabled only when a campaign goal is selected. When you click **OK**, one of the following actions occurs:

- If the currently selected goal has completed an ETL cycle, then a new goal definition is created, which is totally independent of the selected goal.

- If the currently selected goal has not completed an ETL cycle, then the selected definition is updated with the new values and pages.

The following is an example of the Revise Campaign Goal window with a **Response Code** menu displayed. Note that the items in the **Response Code** menu are examples of what might be returned by SAS Marketing Automation. The codes are administered using the SAS Marketing Automation system for the Web campaign, and that system is queried for the list of codes.

Display 8.5   *Revise Campaign Goal Window*

The fields in the Revise Campaign Goal window are identical to the fields in the Add Campaign Goal window. For a description of the fields, see the table that follows the Add Campaign Goal window.

Search for a Campaign Goal Web Page

You can search for a particular Web page for your campaign goal in both the Add Campaign Goal and Revise Campaign Goal windows. Enter your search value in the **Find** field and click **Search**. A list of URLs that contain the value you searched for appears in the **Available Pages** section of the window. When you select a URL from this list, and click **Add Selected**, the URL is displayed in the **Selected Pages** section of the window. Enter a name for your goal in the **Name** field, and then select a condition and a response code. Click **OK**.

If the Response Code Field Returns an Error

If the response code is not able to be retrieved from SAS Marketing Automation, then SAS Web Analytics returns an error message. Contact your system administrator for additional assistance.

View Web Site Dates

The Web Sites window, which you access through the **Admin** tab and the **Web Sites** tab, lists the names of the available Web sites that you can choose from for your report, as well as the start and end dates for which data is available.

Part 3

Traffic Reports

Chapter 9

Identify a Visitor's Web Browser and Platform

Browsers Report

About the Browsers Report

The Browsers report displays a distribution of the different Web browsers that are used by visitors who navigate the Web site. This report enables you to determine which browsers your Web site should support.

Input Requirements for the Browsers Report

Before you view your report, you must enter data for the fields that display when you select a report. For the Browsers report, the following fields display:

Field	Description
Starting Date	specifies the first date of your report.
Ending Date	specifies the last date of your report.

Field	Description
Select Web Site	specifies to select a collection of related Web pages, or to select the data that is stored with the Web site's data mart, which contains Web log information.

Use the calendar icon or the menu beside the date fields to enter the dates for which you want to create your report. Use the menu beside the **Select Web Site** field to select a Web site.

Example of the Browsers Report

Here is an example of the Browsers report:

Display 9.1 Browsers Report
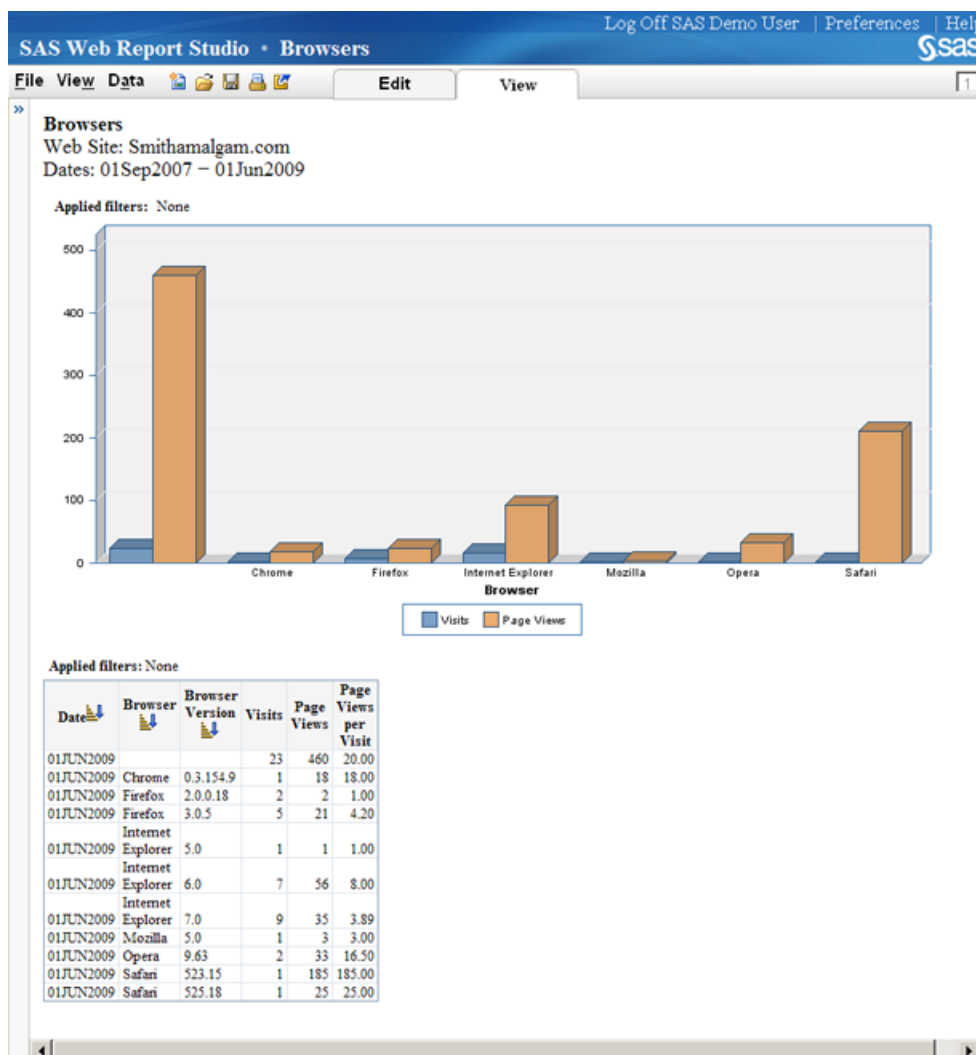
The **Date**, **Browser**, and **Browser Version** columns contain down arrows. Right-click an arrow and select an option from the menu. You can sort the column, move the column to the right or left, align the column, or hide the column.

Description of the Fields in the Browsers Report

The following table describes the fields in the report:

Field	Description
Date	specifies the calendar date for the record.
Browser	specifies the browser that is used by visitors who navigate the Web site.
Browser Version	specifies the version identifier for the browser that is used by visitors who navigate the Web site.
Visits	specifies an attempt of a Web browser to access a Web page within the Web site, and the Web site acknowledging the attempt. The visit concludes either when the same browser closes, or if a visitor elects to navigate to another Web site and does not return.
Page Views	specifies the total number of pages that are viewed by Web site visitors. A valid status code or file type defines a viewed page. The page count does not include objects on a Web page, such as audio files or file requests. Valid pages do not have status codes of 200 through 300, except for codes 302 and 304.
Page Views per Visit	specifies the number of pages that are viewed by a visitor per browser visit. Adding the numbers together across multiple days does not equal the total number of pages viewed, because an average cannot be computed with data that is summed.

Design a Browsers Report

For information about designing a Browsers report, see the *SAS Web Report Studio User's Guide*.

Platforms Report

About the Platforms Report

The Platforms report displays a distribution of the different platforms (operating systems) that are used by visitors who navigate the Web site. Your Web site is displayed differently on different platforms. This report enables you to determine the platforms that your Web site should support.

Input Requirements for the Platforms Report

Before you view your report, you must enter data for the fields that display when you select a report. For the Platforms report, the following fields display:

Field	Description
Starting Date	specifies the first date of your report.
Ending Date	specifies the last day of your report.
Select Web Site	specifies to select a collection of related Web pages, or to select the data that is stored within the Web site's data mart, which contains Web log information.

Use the calendar icon or the menu beside the date fields to enter the dates for which you want to create your report. Use the menu beside the **Select Web Site** field to select a Web site.

Example of the Platforms Report

The following is an example of the Platforms report:

Display 9.2 *Platforms Report*
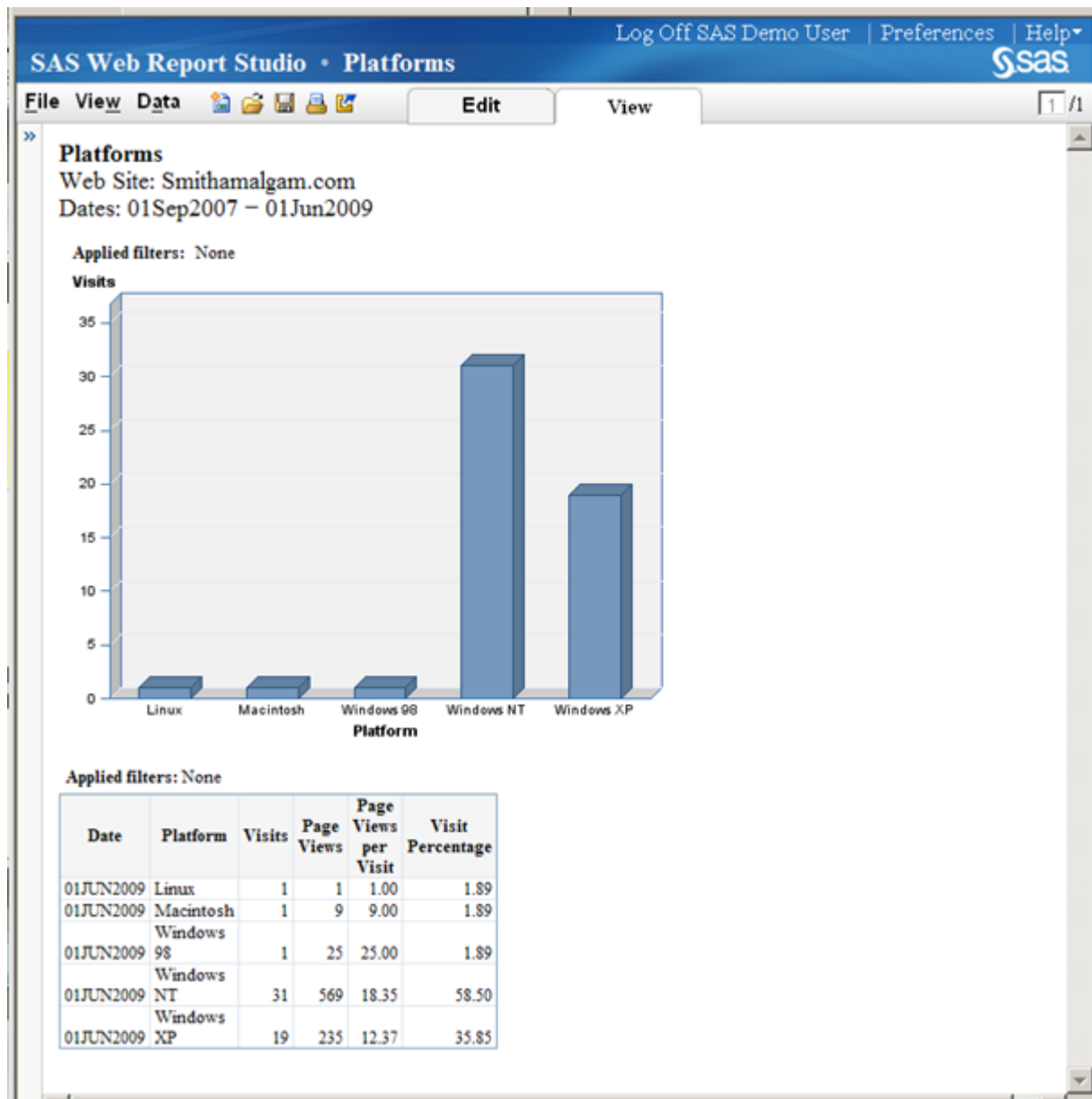
Description of the Fields in the Platforms Report

The following table describes the fields in the report:

Field	Description
Date	specifies the calendar date for the record.
Platform	specifies the platform that is used while accessing the Web site.

Field	Description
Visits	specifies the total number of visits for a particular platform.
Page Views	specifies the total number of pages that are viewed by Web site visitors. A valid status code or file type defines a viewed page. The page count does not include objects on a Web page, such as audio files or file requests. Valid pages do not have status codes of 200 through 300, except for codes 302 and 304.
Page Views per Visit	specifies the total number of pages in a visit that are viewed by a visitor per platform per day. Adding the numbers together across multiple days does not equal the total number of pages viewed, because an average cannot be computed with data that is summed.
Visit Percentage	specifies the percentage of visits that occurred on a specific platform type by visitors who accessed one or more pages on a Web site. Adding the numbers together across multiple days does not equal the total number of visitors, because an average cannot be computed with data that is summed.

Calculating the Percentage of Total Visits

The **Visit Percentage** variable is calculated this way: percentage of total visits = (the number of visits that used the platform type / the total number of visits) * 100.

Design a Platforms Report

For information about designing a Platforms report, see the *SAS Web Report Studio User's Guide*.

Chapter 10

Identify the Frequency of Status Codes That Are Returned from a Web Site

Error Status Report

About the Error Status Report

The Error Status report identifies error status codes based on the requested URL. Status codes that range from 400 to 499 indicate errors that resulted from the visitor's browser. Status codes that range from 500 to 599 indicate errors that occurred on the Web site's server.

Input Requirements for the Error Status Report

Before you view your report, you must enter data for the fields that display when you select a report. For the Error Status report, the following fields display:

Field	Description
Starting Date	specifies the first date of your report.

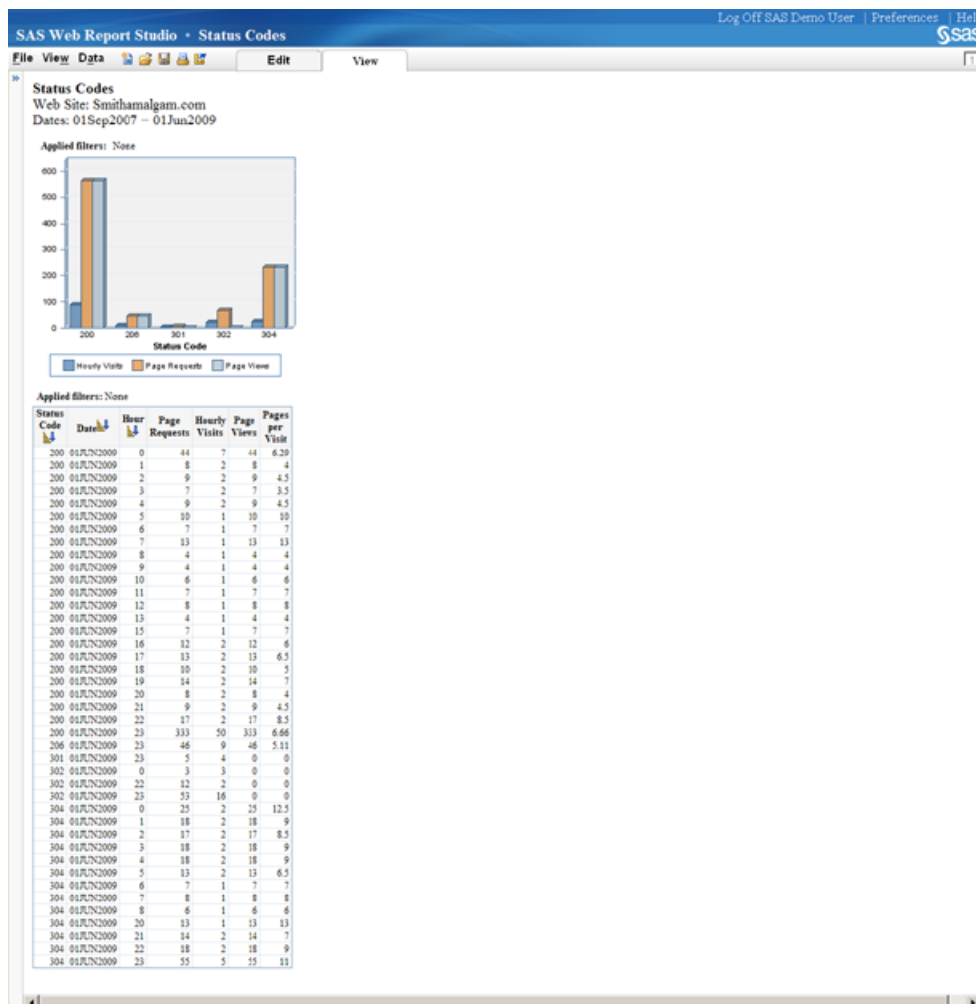| Field	Description
Ending Date	specifies the last date of your report.
Select Web Site	specifies to select a collection of related Web pages, or to select the data that is stored within the Web site's data mart, which contains Web log information.
Number of pages to return per date	specifies the number of report pages that are returned per date.

Use the calendar icon or the menu beside the date fields to enter the dates for which you want to create your report. Use the menu beside the **Select Web Site** field to select a Web site. Enter a number in the **Number of pages to return per date** field.

Example of the Error Status Report

Here is an example of the Error Status report:

Display 10.1   Error Status Report

The **Date**, **Referrer**, and **Visits** columns contain down arrows. Right-click an arrow and select an option from the menu. You can sort the column, move the column to the right or left, align the column, or hide the column.

Description of the Fields in the Error Status Report

The following table describes the fields in the report:

Field	Description
Date	specifies the calendar date for the record.
Referrer	specifies a Web page that provides a link to another page.
Page Description	specifies the URI of the Web page that was viewed by a visitor to the Web site.
Client Errors	specifies errors that were generated by the client. Status codes that begin with 400 and end with 499 identify Client errors.
Server Errors	specifies errors that were generated by the server. Status codes that begin with 500 and end with 599 identify Web server errors.
Visits	specifies the total number of visits for a particular referrer and page combination. *Note:* Visits contain counts where no valid pages were viewed.
Page Views	specifies the total number of pages that are viewed by Web site visitors. A valid status code or file type defines a viewed page. The page count does not include objects on a Web page, such as audio files or file requests. The default valid page codes are 200-206 and 304.
Percentage of Visits	specifies the percentage of all visits for the time period that is selected. Adding the numbers together across multiple days does not equal the total number of visitors, because an average cannot be computed with data that is summed.

Design an Error Status Report

For information about designing an Error Status report, see the *SAS Web Report Studio User's Guide*.

Status Codes by Hour Report

About the Status Codes by Hour Report

The Status Codes by Hour report provides information about the frequency of status codes categorized by hour of day. Status codes that range from 400 to 499 indicate errors that result when a requested file could not be found. Status codes that range from 500 to 599 indicate Web server errors that occurred on the Web site's server, typically when the Web server was not available.

Input Requirements for the Status Codes by Hour Report

Before you view your report, you must enter data for the fields that display when you select a report. For the Status Codes by Hour report, the following fields display:

Field	Description
Starting Date	specifies the first date of your report.
Ending Date	specifies the last date of your report.
Select Web Site	specifies to select a collection of related Web pages, or to select the data that is stored within the Web site's data mart, which contains Web log information.

Use the calendar icon or the menu beside the date fields to enter the dates for which you want to create your report. Use the menu beside the **Select Web Site** field to select a Web site. Enter a number in the **Number of pages to return per date** field.

Example of the Status Codes by Hour Report

Here is an example of the Status Codes by Hour report:

Display 10.2 *Status Codes by Hour Report*

Description of the Fields in the Status Codes by Hour Report

The following table describes the fields in the report:

Field	Description
Date	specifies the calendar date for the record.
Hour	specifies the hour, based on a 24-hour clock (hour 0 is midnight to 12:59 a.m., and so forth).
Status Code	specifies a three-digit code that the server issues to describe the success or failure of a visitor's request for a file from a Web site.

Field	Description
Hourly Visits	specifies the number of visits that receive a certain status code within a certain hour.
Page Requests	identifies an attempt to access a Web page. Each page request generates an entry in a log file.
Page Views	specifies the total number of pages that are viewed by Web site visitors. A valid status code or file type defines a viewed page. The page count does not include objects on a Web page, such as audio files or file requests. Valid pages do not have status codes of 200 through 300, except for codes 302 and 304.
Pages per Visit	specifies the total number of pages that are viewed by a visitor per visit. Adding the numbers together across multiple days does not equal the total number of visitors, because an average cannot be computed on data that is summed.

Design a Status Codes by Hour Report

For information about designing a Status Codes by Hour report, see the *SAS Web Report Studio User's Guide*.

Status Codes Report

About the Status Codes Report

The Status Codes report provides information about the frequency of status codes that were returned by the server to the visitor's browser to report the outcome of a request. Status codes that range from 400 to 499 indicate errors that resulted from the visitor's browser. Status codes that range from 500 to 599 indicate errors that occurred on the Web site's server.

Input Requirements for the Status Codes Report

Before you view your report, you must enter data for the fields that display when you select a report. For the Status Codes report, the following fields display:

Field	Description
Starting Date	specifies the first date of your report.
Ending Date	specifies the last date of your report.

Field	Description
Select Web Site	specifies to select a collection of related Web pages, or to select the data that is stored within the Web site's data mart, which contains Web log information.

Use the calendar icon or the menu beside the date fields to enter the dates for which you want to create your report. Use the menu beside the **Select Web Site** field to select a Web site.

Example of the Status Codes Report

The following is an example of the Status Codes report:

Display 10.3   *Status Codes Report*

The **Status Code**, **Date**, and **Hour** columns contain down arrows. Right-click an arrow and select an option from the menu. You can sort the column, move the column to the right or left, align the column, or hide the column.

Description of the Fields in the Status Codes Report

The following table describes the fields in the report:

Field	Description
Status Code	specifies a three-digit code that the server issues to describe the success or failure of a visitor's request for a file from a Web site.
Date	specifies the calendar date for the record.
Hour	specifies the hour, based on a 24-hour clock (hour 0 is midnight to 12:59 a.m., and so forth).
Page Requests	identifies an attempt to access a Web page. Each page request generates an entry in a log file.
Hourly Visits	specifies the number of visits that receive a certain status code within a certain hour.
Page Views	specifies the total number of pages that are viewed by Web site visitors. A valid status code or file type defines a viewed page. The page count does not include objects on a Web page, such as audio files or file requests. The default valid page codes are 200-206 and 304.
Pages per Visit	specifies the total number of pages that are viewed by a visitor per visit. Adding the numbers together across multiple days does not equal the total number of visitors, because an average cannot be computed with data that is summed.

Design a Status Codes Report

For information about designing a Status Codes report, see the *SAS Web Report Studio User's Guide*.

Chapter 11
Identify Traffic Statistics for a Site

Available Data Report

About the Available Data Report

The Available Data report lists the earliest date and latest date for which data is available for a Web site. You use this data as input to design other traffic reports.

Input Requirements for the Available Data Report

Before you view your report, you must enter data for the fields that display when you select a report. In the **Select data warehouse** field, choose a warehouse that contains data for your report, and then click **View Report** in the upper-right corner of the window.

Example of the Input Window for the Available Data Report

Here is an example of the input window for the Available Data report:

Display 11.1 Input Window for the Available Data Report

Description of the Fields in the Available Data Report

The following table describes the fields in the report:

Field	Description
Earliest Date	specifies the first date of your report.
Latest Date	specifies the last date of your report.

Design an Available Data Report

For information about designing an Available Data report, see the *SAS Web Report Studio User's Guide*.

Day of Week Report

About the Day of Week Report

The Day of Week report enables you to view basic daily traffic statistics for the site by day of the week.

Input Requirements for the Day of Week Report

Before you view your report, you must enter data for the fields that display when you select a report. For the Day of Week report, the following fields display:
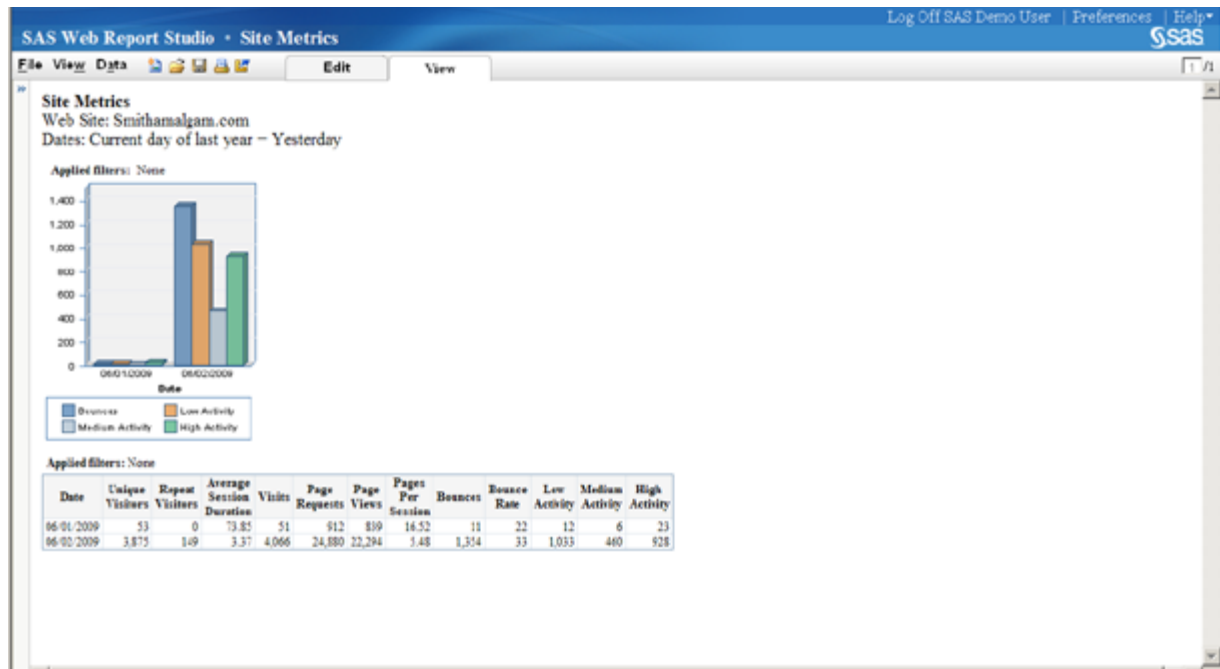
Field	Description
Starting Date	specifies the first date of your report.
Ending Date	specifies the last date of your report.
Select Web Site	specifies to select a collection of related Web pages, or to select the data that is stored within the Web site's data mart, which contains Web log information.

Use the calendar icon or the menu beside the date fields to enter the dates for which you want to create your report. Use the menu beside the **Select Web Site** field to select a Web site.

Example of the Day of Week Report

Here is an example of the Day of Week report:

Display 11.2 *Day of Week Report*
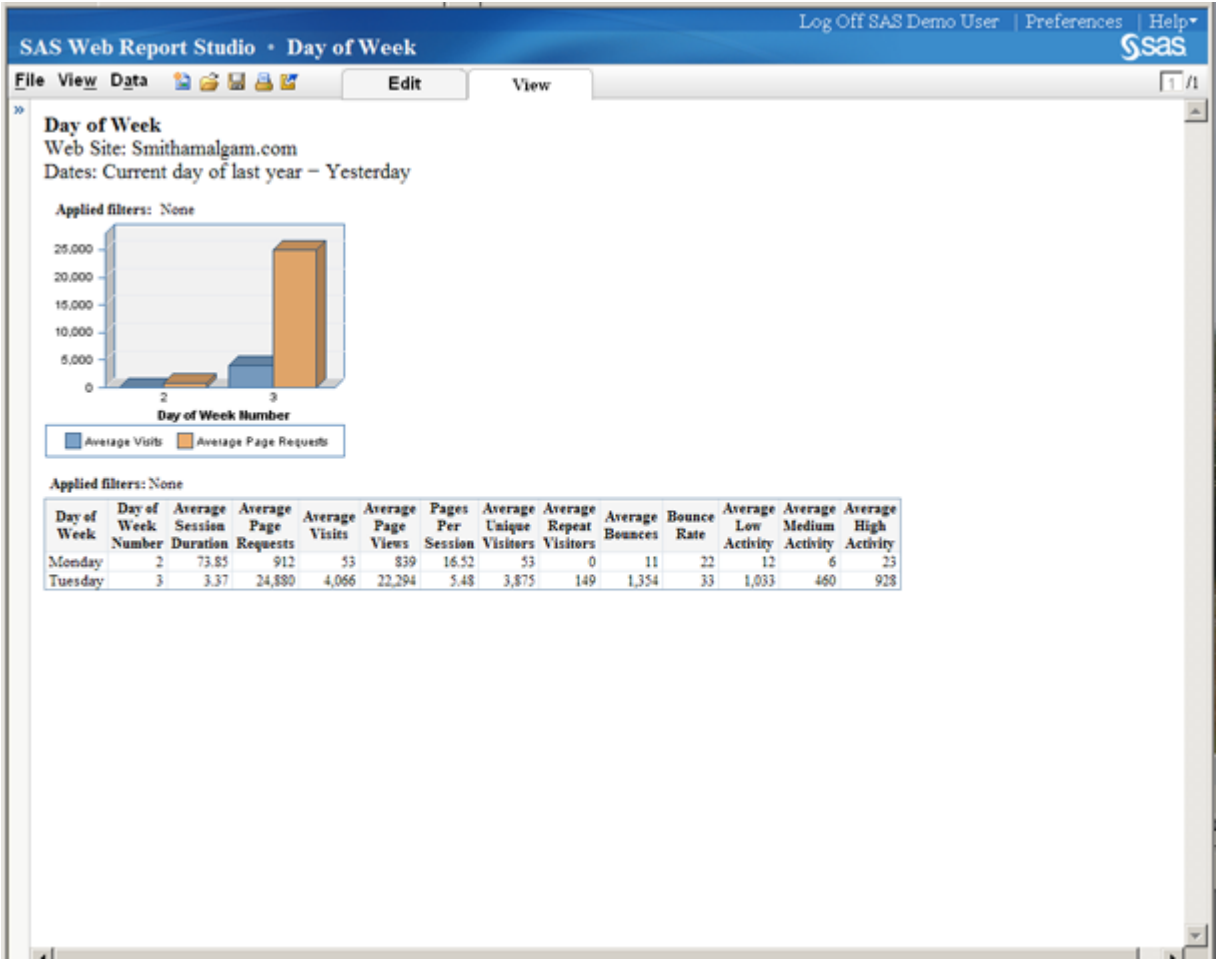
Description of the Fields in the Day of Week Report

The following table describes the fields in the report:

Field	Description
Day of Week	specifies the day of the week in which the data was collected. (You can change which day is the first day of the week by using the value of the week_start parameter in the SAS Web Analytics configuration table.)
Day of Week Number	specifies a number that corresponds to the day of the week. Sunday is considered the first day of the week.
Average Session Duration	specifies the average duration of a session. The average duration of a session cannot be computed with data that is summed. Therefore, do not aggregate the data across multiple days.

Field	Description
Average Page Requests	specifies the average requested page count. The average requested page count cannot be computed with data that is summed. Therefore, do not aggregate the data across multiple days.
Average Visits	specifies the average number of visits that were logged. The number cannot be computed with data that is summed. Therefore, do not aggregate the data across multiple days.
Average Page Views	specifies the average number of pages that were viewed. The number cannot be computed with data that is summed. Therefore, do not aggregate the data across multiple days.
Pages per Session	specifies the average pages per session. The number cannot be computed with data that is summed. Therefore, do not aggregate the data across multiple days.
Average Unique Visitors	specifies the average number of unique visitors who came to the Web site. The number cannot be computed with data that is summed. Therefore, do not aggregate the data across multiple days.
Average Repeat Visitors	specifies the average number of repeat visitors who came to the Web site. The number cannot be computed with data that is summed. Therefore, do not aggregate the data across multiple days.
Average Bounces	specifies the average number of bounces. Bounces are defined as visits where only a single page is viewed by the visitor. The number cannot be computed with data that is summed. Therefore, do not aggregate the data across multiple days.
Bounce Rate	specifies the number of bounces that returned a page, divided by the number of bounces that were requested. The average bounce rate cannot be computed with data that is summed. Therefore, do not aggregate the data across multiple days.
Average Low Activity	specifies the average low activity (low activity visits / total visits). The average low activity cannot be computed with data that is summed. Therefore, do not aggregate the data across multiple days.

Field	Description
Average Medium Activity	specifies the average medium activity (medium activity visits / total visits). The average medium activity cannot be computed with data that is summed. Therefore, do not aggregate the data across multiple days.
Average High Activity	specifies the average high activity (high activity visits / total visits). The average high activity cannot be computed with data that is summed. Therefore, do not aggregate the data across multiple days.

Design a Day of Week Report

For information about designing a Day of Week report, see the *SAS Web Report Studio User's Guide*.

Hourly Metrics

About the Hourly Metrics Report

The Hourly Metric report enables you to view basic daily traffic statistics for the site on an hourly basis. You can use the information in this report to detect traffic irregularities within the time frame of a day and to outline hourly behavioral characteristics.

Input Requirements for the Hourly Metrics Report

Before you view your report, you must enter data for the fields that display when you select a report. For the Hourly Metrics report, the following fields display:

Field	Description
Starting Date	specifies the first date of your report.
Ending Date	specifies the last date of your report.
Select Web Site	specifies to select a collection of related Web pages, or to select the data that is stored within the Web site's data mart, which contains Web log information.

Use the calendar icon or the menu beside the date fields to enter the dates for which you want to create your report. Use the menu beside the **Select Web Site** field to select a Web site.

Example of the Hourly Metrics Report

Here is an example of the Hourly Metrics report:

Display 11.3 *Hourly Metrics Report*
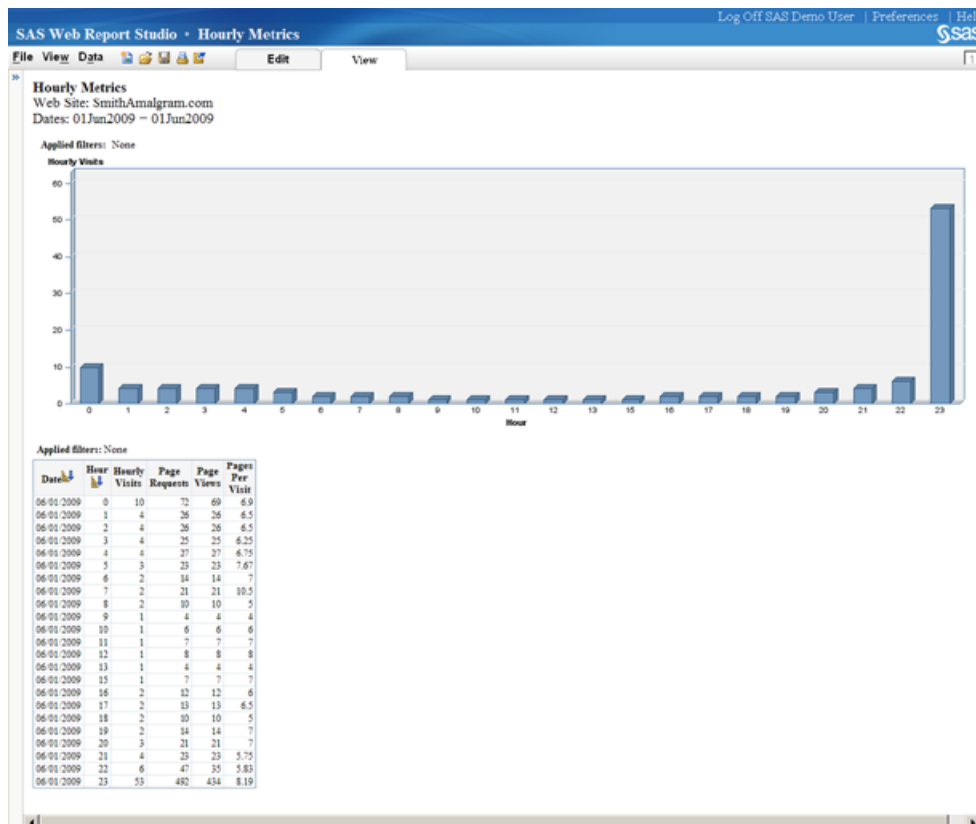
The **Date** and **Hour** columns contain down arrows. Right-click an arrow and select an option from the menu. You can sort the column, move the column to the right or left, align the column, or hide the column.

Description of the Fields in the Hourly Metrics Report

The following table describes the fields in the report:

Field	Description
Date	specifies the calendar date for the record.
Hour	specifies the hour, based on a 24-hour clock (hour 0 is midnight to 12:59 a.m., and so forth).
Hourly Visits	specifies the number of visits that receive a certain status code within a certain hour.
Page Requests	identifies an attempt to access a Web page. Each page request generates an entry in a log file.

Field	Description
Page Views	specifies the total number of pages that are viewed by Web site visitors. A valid status code or file type defines a viewed page. The page count does not include objects on a Web page, such as audio files or file requests. Valid pages do not have status codes of 200 through 300, except for codes 302 and 304.
Pages per Visit	specifies the total number of pages that are viewed by a visitor per visit. You can view the number of pages on an hourly basis, or for periods that last more than one hour. Adding the numbers of pages together for multiple visits does not equal the total number of pages, because an average cannot be computed correctly by adding averages.

Design an Hourly Metrics Report

For information about designing an Hourly Metrics report, see the *SAS Web Report Studio User's Guide*.

Site Metrics Report

About the Site Metrics Report

The Site Metrics report displays basic traffic statistics for the site. You can use the information in this report to detect traffic irregularities and to outline behavioral characteristics.

Input Requirements for the Site Metrics Report

Before you view your report, you must enter data for the fields that display when you select a report. For the Site Metrics report, the following fields display:

Field	Description
Starting Date	specifies the first date of your report.
Ending Date	specifies the last date of your report.
Select Web Site	specifies to select a collection of related Web pages, or to select the data that is stored within the Web site's data mart, which contains Web log information.

Use the calendar icon or the menu beside the date fields to enter the dates for which you want to create your report. Use the menu beside the **Select Web Site** field to select a Web site.

Example of the Site Metrics Report

Here is an example of the Site Metrics report:

Display 11.4   Site Metrics Report

Description of the Fields in the Site Metrics Report

The following table describes the fields in the report:

Field	Description
Date	specifies the calendar date for the record.
Unique Visitors	specifies the number of distinct visitors who visit your Web site. Adding the numbers of distinct visitors together does not equal the total number of visitors, because an average cannot be computed correctly by adding averages.
Repeat Visitors	specifies the total number of visitors who come to the Web site more than once. Adding the numbers of visitors together does not equal the total number of visitors, because an average cannot be computed correctly by adding averages.

Field	Description
Average Session Duration (minutes)	specifies the average length of time (in minutes) for a session. Adding together the values for the average length of time does not equal the total time, because an average cannot be computed correctly by adding averages.
Visits	specifies a count of individual visits by day.
Page Requests	identifies an attempt to access a Web page. Each page request generates an entry in a log file.
Page Views	specifies the total number of pages that are viewed by Web site visitors. A valid status code or file type defines a viewed page. The page count does not include objects on a Web page, such as audio files or file requests. Valid pages do not have status codes of 200 through 300, except for codes 302 and 304.
Pages per Session	specifies the number of pages that were viewed per session.
Bounces	specifies visits where a single page is viewed by the visitor. This page is both the entry and exit page.
Bounce Rate	specifies the number of bounces that returned a page, divided by the number of bounces that were requested. Adding the numbers of bounces together does not equal the total number of bounces, because an average cannot be computed correctly by adding averages.
Low Activity	specifies the number of Web visits that experienced low activity.
Medium Activity	specifies the number of Web visits that experienced medium activity.
High Activity	specifies the number of Web visits that experienced high activity.

Design a Site Metrics Report

For information about designing a Site Metrics report, see the *SAS Web Report Studio User's Guide*.

Chapter 12

Identify Frequently Visited Web Sites

Visitor Frequency Report

About the Visitor Frequency Report

The Visitor Frequency report shows the average time (number of days) between visits to a Web site. The average time is calculated for visitors who return in the time frame specified in the reporting range (start date and end date), but considers all lifetime visits.

Input Requirements for the Visitor Frequency Report

Before you view your report, you must enter data for the fields that display when you select a report. For the Visitor Frequency report, the following fields display:

Field	Description
Starting Date	specifies the first date of your report.

Field	Description
Ending Date	specifies the last date of your report.
Select Web Site	specifies to select a collection of related Web pages, or to select the data that is stored within the Web site's data mart, which contains Web log information.

Use the calendar icon or the menu beside the date fields to enter the dates for which you want to create your report. Use the menu beside the **Select Web Site** field to select a Web site.

Example of the Visitor Frequency Report

Here is an example of the Visitor Frequency report:

Display 12.1   *Visitor Frequency Report*

The **Frequency** column contains a down arrow. Right-click the arrow and select an option from the menu. You can sort the column, move the column to the right or left, align the column, or hide the column.

How Frequency of Visitors Is Calculated

The frequency for each visitor = ((Date of last visit) - (Date of first visit)) / (number of visits - 1). This calculation assumes that date values increment by one for each calendar date, as SAS dates do.

Visitors to the site are defined as unique visitors. A unique visitor visits a Web site one or more times. For this report, a unique visitor who visits the Web site multiple times is counted as a single visitor (with multiple visits). Visitors who visit the site only once are excluded from the result because it is not possible to generate a frequency for them. Percentages appear to be low because the visitors who visit once are included in the denominator when calculating the percentage. Results are limited to dates on or after the start date but before the end date.

The time span does not include the end date (the most recent date). The valid dates begin with the start date and end before the end date.

Description of the Fields in the Visitor Frequency Report

The following table describes the fields in the report:

Field	Description
Frequency	specifies the average time between visits to a Web site.
Visitors	specifies the number of visitors who visit your Web site.
% Total Visitors	specifies the percentage of all visitors who viewed the Web site or URI.
Average Session Duration	specifies the average number of seconds for a session.

Design a Visitor Frequency Report

For information about designing a Visitor Frequency report, see the *SAS Web Report Studio User's Guide*.

Visitor Recency Report

About the Visitor Recency Report

The Visitor Recency report shows the number of visitors who returned to the Web site after a specified number of days.

Input Requirements for the Visitor Recency Report

Before you view your report, you must enter data for the fields that display when you select a report. For the Visitor Recency report, the following fields display:

Field	Description
Starting Date	specifies the first date of your report.
Ending Date	specifies the last date of your report.
Select Web Site	specifies to select a collection of related Web pages, or to select the data that is stored within the Web site's data mart, which contains Web log information.

Use the calendar icon or the menu beside the date fields to enter the dates for which you want to create your report. Use the menu beside the **Select Web Site** field to select a Web site.

Example of the Visitor Recency Report

Here is an example of the Visitor Recency report:

Display 12.2 *Visitor Recency Report*

How Recency Is Calculated

Recency refers to how recently a prospect made a visit to a Web site, and is usually part of a Recency, Frequency, Duration (RFD) analysis. Recency is calculated as the number of days from the end of the reporting period to the most recent visit in that time frame. For example, if you have a period of time between the start date and end date, the end date is the date from which you calculate recency, and the start date is the start of the reporting time frame.

No visitors are excluded or removed from this analysis during the report time span. Single-visit visitors, or single-page view visitors are not removed from the calculation.

The time span does not include the end date (the most recent date). The valid dates begin with the start date and end before the end date.

Visitors to the site are defined as unique visitors. A unique visitor visits a Web site one or more times. For this report, a unique visitor who visits the Web site multiple times is counted as a single visitor (with multiple visits). Visitors who visit the site only once are excluded from the result because it is not possible to generate a recency for them. Percentages appear to be low because the visitors who visit once are included in the denominator when calculating the percentage. Results are limited to dates on or after the start date but before the end date.

Time is grouped by week, and 0 weeks cannot be displayed as "less than 7 days." Therefore, a value of 0 is substituted in this case.

Description of the Fields in the Visitor Recency Report

The following table describes the fields in the report:

Field	Description
Weeks	specifies the number of weeks that visits were made to the Web site.
Visitors	specifies number of visitors who came to the Web site.
% Visits	specifies a count of individual visits for a particular visitor and day combination that is expressed as a percentage.
Average Session Duration	specifies the average number of minutes for a session. The average duration is calculated as the total time the visitors of that recency group spent on the Web site divided by the number of visits by those visitors during the reporting time frame.

Design a Visitor Recency Report

For information about designing a Visitor Recency report, see the *SAS Web Report Studio User's Guide*.

Traffic Heat Map

About the Traffic Heat Map

The Traffic Heat Map presents a color-coded map of the United States. The colors indicate the level of Web activity for geographical areas.

Input Requirements for the Traffic Heat Map

Before you view the heat map, you must enter data for the fields that display when you select a report. For the Traffic Heat Map, the following fields display:

Field	Description
Starting Date	specifies the first day of your report.
Ending Date	specifies the last day of your report.
Select Web Site	specifies to select a collection of related Web pages, or to select the data that is stored within the Web site's data mart, which contains Web log information.
Display unique visitors?	enables you to select whether to display unique visitors in the report.
Display MSA Name?	enables you to select whether to display the metropolitan statistical area (MSA) name. The MSA is a geographic area defined by the U.S. Office of Management and Budget (OMB) to ensure consistency in the collection and tabulation of federal statistics. Each metropolitan statistical area includes at least one urban area with a minimum population of 50,000. Outlying counties with clear social and economic ties to the main urban area are also included.

Use the calendar icon or the menu beside the date fields to enter the dates for which you want to create your report. Use the menu beside the **Select Web Site** field to select a Web site. For the unique visitors and MSA name, select **Yes** or **No** from the menu.

Example of the Traffic Heat Map for the United States

The following is an example of the Traffic Heat Map for the United States. Light green colors indicate light Web activity from those geographical areas. Dark red represents high Web activity.

Display 12.3 *Traffic Heat Map*
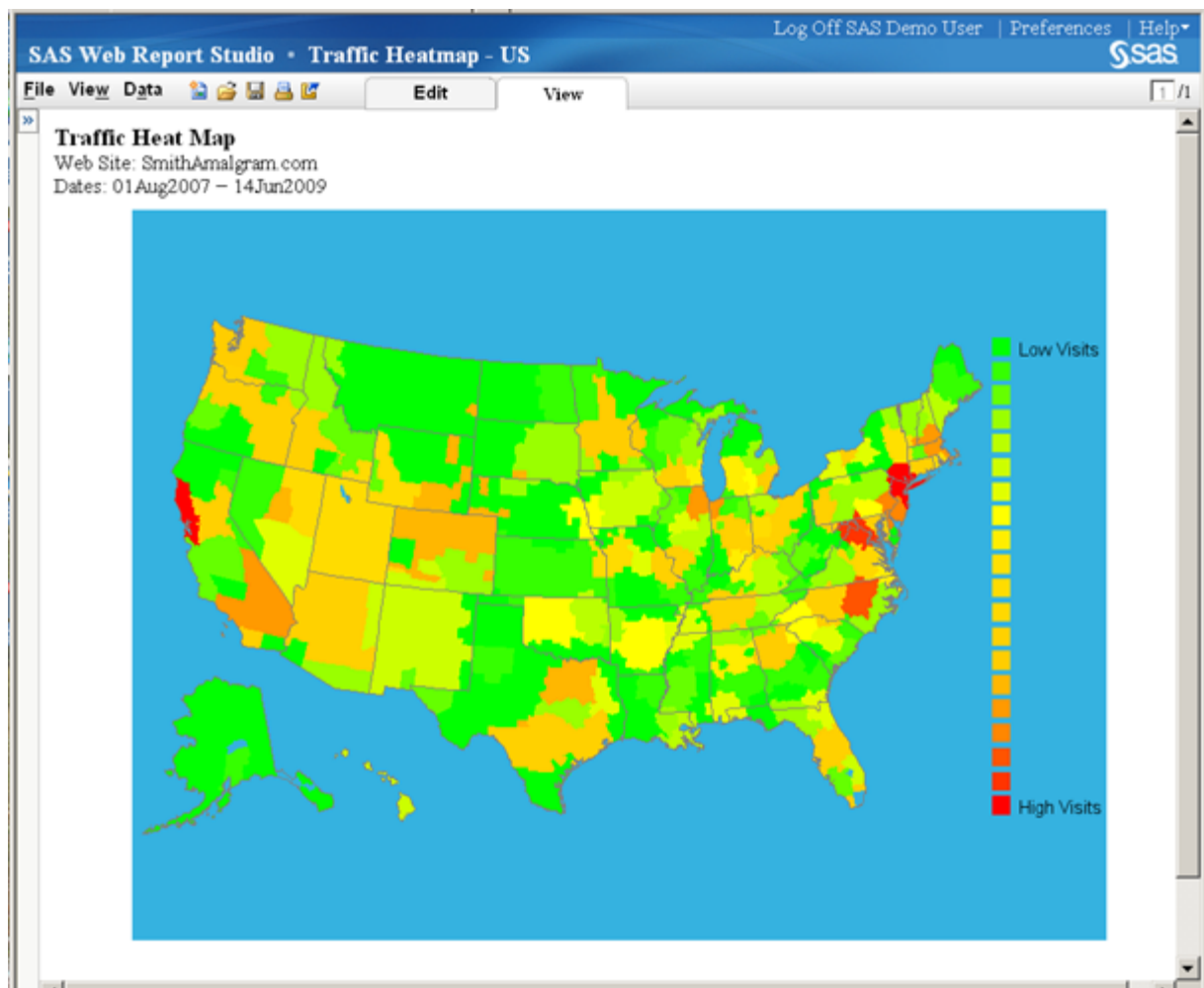
The colors on the map represent the number of Web visits that originate from specific areas on the map.

If you selected **Yes** to the questions about unique visitors or the metropolitan statistical area (MSA), values for these items appear when you position your cursor over the different parts of the map. For example, if you click and position the cursor over an area in North Carolina, the following type of information displays:

```
Primary MSA Greensboro: Winston-Salem- -High Point, NC MSA DMA Number:
560 Visits: 368 Visitors: 294
```

The MSA is a geographic area that you are targeting for a marketing campaign. The designated market area (DMA) is a geographic area where visitors have access to the same Web content in a campaign.

Design a Traffic Heat Map

For information about designing a Heat Map report, see the *SAS Web Report Studio User's Guide*.

Chapter 13

Identify Pages from Your Web Site That Visitors Requested

Pages Report

About the Pages Report

The Pages report displays a distribution of the pages that were requested by visitors to a Web site. This report enables you to identify the pages and families of pages that are most often viewed. You can also view session and error counts and percentages for the pages. Use this information to define business segments and to modify or optimize paths.

Input Requirements for the Pages Report

Before you view your report, you must enter data for the fields that display when you select a report. For the Pages report, the following fields display:

Field	Description
Starting Date	specifies the first date of your report.
Ending Date	specifies the last date of your report.
Select Web Site	specifies to select a collection of related Web pages, or to select the data that is stored within the Web site's data mart, which contains Web log information.
Number of pages per day to return	specifies the number of pages to return per day for a visitor who visits your Web site.

Use the calendar icon or the menu beside the date fields to enter the dates for which you want to create your report. Use the menu beside the **Select Web Site** field to select a Web site.

Example of the Pages Report

Here is an example of the Pages report:

Display 13.1 *Pages Report*

Description of the Fields in the Pages Report

The following table describes the fields in the report:

Field	Description
Date	specifies the calendar date for the record.
Page Description	specifies the URI of the Web page that was viewed by a visitor to the Web site.
Visits	specifies an attempt of a Web browser to access a Web page within the Web site, and the Web site acknowledging the attempt. The visit concludes either when the same browser closes, or if you elect to navigate to another Web site and do not return.
Percentage of Visits	specifies the percentage of visits by visitors who access one or more pages on a Web site. Adding the percentages together does not equal the total, because an average cannot be computed correctly by adding averages.

Field	Description
Page Views	specifies the total number of pages that are viewed by Web site visitors. A valid status code or file type defines a viewed page. The page count does not include objects on a Web page, such as audio files or file requests. Valid pages have status codes of 200 through 300.
Percentage of Pages	specifies the percentage of pages that are viewed by a visitor to the Web site. Adding the numbers of pages together does not equal the total number of pages, because an average cannot be computed correctly by adding averages.
Bounces	specifies visits that consist of a one-page view, where the entry page and exit page are the same page.
Bounce Rate	specifies the percentage of requests (prospective bounces) that successfully returned a page. Adding the numbers of prospective bounces together does not equal the total number of prospective bounces, because an average cannot be computed correctly by adding averages.
Client Errors	specifies errors that were generated by the client. Status codes that begin with 400 and end with 499 identify Client errors.
Server Errors	specifies errors that were generated by the server. Status codes that begin with 500 and end with 599 identify Web server errors.
Entry Page Count	specifies the number of pages that were entry pages to the Web site.
Exit Page Count	specifies the number of pages that were exit pages from the Web site.

Design a Pages Report

For information about designing a Pages report, see the *SAS Web Report Studio User's Guide*.

Bounce Rate Report

About the Bounce Rate Report

The Bounce Rate report lists the pages within a Web site that "bounced." Bounces are defined as sessions where a single page is viewed by the visitor, and that page is both the entry and exit page. Bounce rate is the percentage of requests (prospective bounces) that successfully returned a page. A prospective bounce is the first valid page that is returned to a user within a session.

A session can have more than one page request before the first page that is viewed. Examples of this are redirected pages and error pages. A session is not a bounce session if any page request occurs after the one-page view.

The top URLs are selected from each day, not from the overall period. This method enables you to add the date value to the report and to subset the results accordingly.

Input Requirements for the Bounce Rate Report

Before you view your report, you must enter data for the fields that display when you select a report. For the Bounce Rate report, the following fields display:

Field	Description
Starting Date	specifies the first date of your report.
Ending Date	specifies the last date of your report.
Select Web Site	specifies to select a collection of related Web pages, or to select the data that is stored within the Web site's data mart, which contains Web log information.
Number of URLs to display	specifies the number of URLs to display, based on the number of URLs you entered in the input field.

Example of the Bounce Rate Report

Here is an example of the Bounce Rate report. Eight URLs are displayed (that is, the number that was entered in the input data).

Display 13.2 *Bounce Rate Report*

Description of the Fields in the Bounce Rate Report

The following table describes the fields in the report:

Field	Description
URL	specifies the Web page that visitors viewed.
Bounce Rate	specifies the percentage of requests (prospective bounces) that successfully returned a page.
Unique Visitors	specifies the number of unique visitors who visit your Web site. Adding the numbers of unique visitors together does not equal the total number, because an average cannot be computed correctly by adding averages.
Visits	specifies an attempt of a Web browser to access a Web page within the Web site, and the Web site acknowledging the attempt. The visit concludes either when the same browser closes, or if you elect to navigate to another Web site and do not return.

Design a Bounce Rate Report

For information about designing a Bounce Rate report, see the *SAS Web Report Studio User's Guide*.

Top Referrer Entry Pages Report

About the Top Referrer Entry Pages Report

The Top Referrer Entry Pages report displays a distribution of points of entry by a referrer. This report enables you to determine from which referrers the traffic originates, and to which pages traffic is directed. This report provides useful information for properly channeling traffic to desired sections of the Web site. It can also be used to assess affiliate referrer traffic volumes while monitoring incoming visits.

Input Requirements for the Top Referrer Entry Pages Report

Before you view your report, you must enter data for the fields that display when you select a report. For the Top Referrer Entry Pages report, the following fields display:

Field	Description
Starting Date	specifies the first date of your report.
Ending Date	specifies the last date of your report.
Select Web Site	specifies to select a collection of related Web pages, or to select the data that is stored within the Web site's data mart, which contains Web log information.
Number of Referrer/Entry Page combinations to display per day	specifies the number of page combinations to display per day.

Example of the Top Referrer Entry Pages Report

Here is an example of the Top Referrer Entry Pages report:

Display 13.3 Top Referrer Entry Pages Report

The **Date** and **Entry Page Count** columns contain down arrows. Right-click an arrow and select an option from the menu. You can sort the column, move the column to the right or left, align the column, or hide the column.

Description of the Fields in the Top Referrer Entry Pages Report

The following table describes the fields in the report:

Field	Description
Date	specifies the calendar date for the record.
Referrer Domain	specifies the domain name for a Web page that provides a link to another page or URI.

Field	Description
Page Description	specifies the URI of the Web page that was viewed by a visitor to the Web site.
Entry Page Count	specifies the number of pages that were entry pages to the Web site.

Design a Top Referrer Entry Pages Report

For information about designing a Top Referrer Entry Pages report, see the *SAS Web Report Studio User's Guide*.

Exit Pages Report

About the Exit Pages Report

The Exit Pages report displays the number of pages per date that were exit pages from a Web site.

Input Requirements for the Exit Pages Report

Before you view your report, you must enter data for the fields that display when you select a report. For the Exit Pages report, the following fields display:

Field	Description
Starting Date	specifies the first date of your report.
Ending Date	specifies the last date of your report.
Select Web Site	specifies to select a collection of related Web pages, or to select the data that is stored within the Web site's data mart, which contains Web log information.
Number of pages to return per date	specifies the number of pages that are returned for each date.

Example of the Exit Pages Report

Here is an example of the Exit Pages report:

Display 13.4   Exit Pages Report

Description of the Fields in the Exit Pages Report

The following table describes the fields in the report:

Field	Description
Date	specifies the calendar date for the record.
Page Description	specifies the URI of the Web page that was viewed by a visitor to the Web site.
Exit Page Count	specifies the number of last pages that visitors viewed before leaving a Web site.

Design an Exit Pages Report

For information about designing an Exit Pages report, see the *SAS Web Report Studio User's Guide*.

Chapter 14

Identify Points of Entry and Search Terms

Referrer Entry Pages Report

About the Referrer Entry Pages Report

The Referrer Entry Pages report displays a distribution of points of entry by a referrer. This report enables you to determine from which referrers the traffic originates, and to which pages traffic is directed. This report provides useful information for properly channeling

traffic to desired sections of the Web site. It can also be used to assess affiliate referrer traffic volumes while monitoring incoming visits.

Input Requirements for the Referrer Entry Pages Report

Before you view your report, you must enter data for the fields that display when you select a report. For the Referrer Entry Pages report, the following fields display:

Field	Description
Starting Date	specifies the first date of your report.
Ending Date	specifies the last date of your report.
Number of Referrer/Page combinations to return per date	specifies the number of referrers that accessed a Web page per date.

Example of the Referrer Entry Pages Report

Here is an example of the Referrer Entry Pages report:

Display 14.1   Referrer Entry Pages Report

The **Date**, **Referrer**, and **Pages** columns contain down arrows. Right-click an arrow and select an option from the menu. You can sort the column, move the column to the right or left, align the column, or hide the column.

Description of the Fields in the Referrer Entry Pages Report

The following table describes the fields in the report:

Field	Description
Date	specifies the calendar date for the record.
Referrer	specifies a Web page that provides a link to another page.
Page Description	specifies the URI of the Web page that was viewed by a visitor to the Web site.
Pages	specifies the number of times the page for that particular referrer was the first requested page and a valid page.
Percentage of Pages	specifies the number of pages as a percentage of all first requested pages on that day.
Visits	specifies a count of individual visits for the referrer and page combination, in which the page was the first requested page.
Percentage of Visits	specifies the number of visits as a percentage of all visits for that day. Adding the numbers of visits together does not equal the total number of visits, because an average cannot be computed correctly by adding averages.

Design a Referrer Entry Pages Report

For information about designing a Referrer Entry Pages report, see the *SAS Web Report Studio User's Guide*.

Organic Goal Page Summary Report

About the Organic Goal Page Summary Report

The Organic Goal Page Summary report categorizes visits from search engines by non-paid keyword search terms and by the goal pages that you select. A goal page has a significant meaning. It is the page to which you want to drive offline traffic. You can select any number of goal pages. SAS Web Analytics reports on the visits with search terms that visit a goal page within a session.

Input Requirements for the Organic Goal Page Summary Report

Before you view your report, you must enter data for the fields that display when you select a report. For the Organic Goal Page Summary report, the following fields display:

Field	Description
Starting Date	specifies the first date of your report.
Ending Date	specifies the last date of your report.
Select Web Site	specifies to select a collection of related Web pages, or to select the data that is stored within the Web site's data mart, which contains Web log information.

Description of the Fields in the Organic Goal Page Summary Report

The following table describes the fields in the report:

Field	Description
Goal Pages	specifies special pages to which a customer is trying to drive offline traffic.
Total Visits	specifies the number of visits to a Web site by a visitor using a Web browser to access one or more pages.
Converted Visits	specifies the number of visits in which visitors progressed from one page to another within the Web pages on your site.
% of Total Goal Page Visits	specifies the percentage of goal page visits by visitors who access one or more pages on a Web site: % of Total Goal Page Visits = (Converted Visits/Total Visits)*100.

Design an Organic Goal Page Summary Report

For information about designing an Organic Goal Page Summary report, see the *SAS Web Report Studio User's Guide*.

Organic Search Summary Report

About the Organic Search Summary Report

The Organic Search Summary report displays a chart and two tables that show total organic (not pay-per-click) visits by day. It includes a total summary of all organic searches, and an organic search summary by search engine.

Input Requirements for the Organic Search Summary Report

Before you view your report, you must enter data for the fields that display when you select a report. For the Organic Search Summary report, the following fields display:

Field	Description
Start Date	specifies the first date of your report.
End Date	specifies the last date of your report.
Select Web Site	specifies to select a collection of related Web pages, or to select the data that is stored within the Web site's data mart, which contains Web log information.

Description of the Fields in the Organic Search Summary Report

The following table describes the fields in the report:

Field	Description
Search Visits	specifies the total number of visits for that time period where a search engine and search term were used, and where the search was organic. That is, it was not a pay-per-click search.
% Total Visits	specifies the total number of search visits divided by the total number of all visits for that time period.
Converted Visits	specifies the total number of search visits where one of the goal pages was viewed during that time period.
% of Goal Page Visits	specifies the total number of converted visits divided by the total number of all visits that viewed at least one of the goal pages during that time period.

Field	Description
Conversion Rate	specifies the total number of converted visits divided by the number of search visits, multiplied by 100. The conversion rate is expressed as a percentage.
Effective Score	specifies the sum of the goal values for all of the converted visits divided by the number of converted visits. For example, if there were three converted visits and the value of the goal hit for each converted visit was 10, 40, and 50, then the effective score would be 100 divided by 3 (33.33%).

Organic Search Word Effectiveness Report

About the Search Word Effectiveness Report

The Organic Search Word Effectiveness report contains search terms that are specified by the customer for a time period based on the total number of searches. The Organic Search Word Effectiveness report generates information from unpaid searches.

Input Requirements for the Organic Search Word Effectiveness Report

Before you view your report, you must enter data for the fields that display when you select a report. For the Organic Search Word Effectiveness report, the following fields display:

Field	Description
Starting Date	specifies the first date of your report.
Ending Date	specifies the last date of your report.
Select Web Site	specifies to select a collection of related Web pages, or to select the data that is stored within the Web site's data mart, which contains Web log information.
Number of top search terms to display	specifies the number of search terms to display. Top search terms are defined as the search terms that have the highest total number of search visits within the time period selected.

Field	Description
Enter search term or partial term to report on	specifies search terms to report on. A prompt enables you to enter a word or string to display. The query uses a CONTAINS clause so that any search term that contains the term will be selected. If this field is not blank, it overrides the number of top search terms to display.

Example of the Organic Search Word Effectiveness Report

Here is an example of the Organic Search Word Effectiveness report:

Display 14.2 *Organic Search Word Effectiveness Report*

The **Search Goal Visits** column contains a down arrow. Right-click the arrow and select an option from the menu. You can sort the column, move the column to the right or left, align the column, or hide the column.

Description of the Fields in the Organic Search Word Effectiveness Report

The following table describes the fields in the report:

Field	Description
Search Term Txt	specifies the term for which you are searching in the date range for the report.
Search Visits	specifies the number of visits where visitors entered the site by means of a search term from an external referrer.
Search Goal Visits	specifies the number of visits where visitors entered the site by means of a search term from an external referrer, and where a goal page was viewed for a particular day.
Conversion Rate	specifies the ratio of converted searches to total searches.
Success Factor	determines how successful a keyword is at converting visitors to high-value goal pages in relation to other search terms.
Effective Conversion	demonstrates how effective a search term is at converting users to high-value Web pages.
Effective Score	represents a measure of what goal pages the site drives visitors to.

Metrics and Statistics

The following metrics and statistics are used in calculating values for the Organic Search Word Effectiveness report:

- Converted Searches = ΣCS_i

  A converted search is one in which a specific goal page (defined on the **Admin** tab) was used.

- Total Searches = ΣS_i

  Total searches is the number of external engine searches for a given search term.

- Conversion Rate = $(\Sigma CS_i / \Sigma S_i) * 100$

  The conversion rate is the ratio of converted searches to total searches.

- Success Factor = $(\Sigma(CS_i * GV_i) / \Sigma CS_i * \Sigma GV_i) * 100$

The success factor determines how successful a keyword is at converting visitors to high-value goal pages in relation to other search terms.

- Effective Conversion = $(\Sigma(CSi*GVi)/\Sigma Si*\Sigma GVi)*100$

The effective conversion rate demonstrates how effective a search term is at converting users to high-value Web pages.

- Effective Score = $\Sigma(CSi*GVi)/\Sigma CSi$

The effective score represents a measure of what goal pages the site is driving visitors to.

- Goal Metric specifies any page that you identify as having a payoff. Whenever a goal page is accessed, the goal value is accumulated.

In these examples, the input data is as follows:

```
Aug2 S 2 CS 1 GV 600
Aug12 S 1 CS 1 GV 600
Aug14 S 2 CS 1 GV 200
Aug17 S 4 CS 1 GV 200
```

S specifies the number of external search engine search visits for a given search term. CS specifies the number of visits where visitors entered the site from a search term of an external referrer, and where a goal page was viewed for a particular day. GV specifies the value that a Web analyst attributes to a goal page. This value is called goal value, and is the number at the time the event took place. The value i in the following examples is an index for all goal pages:

Example of Success Factor Calculation: The denominator is $\Sigma CSi*\Sigma GVi$ (in this case, it is 4*800). Only the unique goal values of 600 and 200 are counted. Therefore, 600/3200+600/3200+200/3200+200/3200 gives a total of 1600/3200*100, which is 50.

Example of Effective Conversion Denominator: The effective conversion denominator is $\Sigma Si*\Sigma GVi$ (in this case, it is 9*800). The GVi counts only the unique goal values of 600 and 200. Therefore, 600/7200+600/7200+200/7200+200/7200 gives a total of 1600/7200*100, which is 22.22.

Design an Organic Search Word Effectiveness Report

For information about designing an Organic Search Word Effectiveness report, see the *SAS Web Report Studio User's Guide*.

Organic Search Word Overview Report

About the Organic Search Word Overview Report

The Organic Search Word Overview report displays a table that shows all goal pages and search terms that are associated with them. The Organic Search Word Overview report generates information from unpaid searches.

Input Requirements for the Organic Search Word Overview Report

Before you view your report, you must enter data for the fields that display when you select a report. For the Organic Search Word Overview report, the following fields display:

Field	Description
Starting Date	specifies the first date of your report.
Ending Date	specifies the last date of your report.
Select Web Site	specifies to select a collection of related Web pages, or to select the data that is stored within the Web site's data mart, which contains Web log information.

Example of the Organic Search Word Overview Report

Here is an example of the Organic Search Word Overview report:

Display 14.3 *Organic Search Word Overview Report*

The **Goal Page** and **Total Searches** columns contain down arrows. Right-click an arrow and select an option from the menu. You can sort the column, move the column to the right or left, align the column, or hide the column.

Description of the Fields in the Organic Search Word Overview Report

The following table describes the fields in the report:

Field	Description
Goal Page	specifies a page that you want your visitors to go to. It specifies any page that you designate that results in a payoff.
Search Term	specifies the term for which you are searching in the date range for the report.
Total Searches	specifies the total number of searches per session.
Converted Visits	specifies the number of visits in which a visitor views a goal page.
Conversion Rate	demonstrates how effective a search term is at converting visitors to high-value Web pages.
% of Total Goal Page Visits	is computed in the following way: % of Total Goal Page Visits=(Converted Visits / Total Visits)*100.

Design an Organic Search Word Overview Report

For information about designing an Organic Search Word Overview report, see the *SAS Web Report Studio User's Guide*.

Chapter 15
Use AdWords for Bid Campaigns

Search Engine Bid Campaigns Report

About the Search Engine Bid Campaigns Report

The Search Engine Bid Campaigns report displays the results of using AdWords that are located on Yahoo, Google, MSN, and other search engines. These AdWords follow a pay-per-click sponsor system where the placement of the sponsor is ranked by how much the sponsor is willing to pay for a keyword. Customers enter a bid and the budget they are willing to spend. The reporting, updating, maintenance, and alerting of the AdWord's bids, ROI, impressions, and cost is called Search Engine Bid Management.

Input Data Requirements for the Search Engine Bid Campaigns Report

Before you view your report, you must enter input data for the fields that display when you select a report. For the Search Engine Bid Campaigns report, the following fields display:

Field	Description
Select Campaign	specifies a collection of related Web pages that is used to contact potential customers. Campaigns can be internal or external. An internal campaign (internal referrers) guides visitors through the Web site. An external campaign references an outside entity, such as a PPC ad, that sent a visitor to a Web sight.
Select Starting Month	specifies the first month of your report.
Select Ending Month	specifies the last month of your report.

Use the calendar or the menu beside the date fields to enter the dates for which you want to create your report. Use the menu beside the **Select Web Site** field to select a Web site.

Description of the Fields in the Search Engine Bid Campaigns Report

The following table describes the fields in the report:

Field	Description
Month	specifies the first day of the month.
Currency Cd	specifies the ISO currency code that is associated with a specific campaign.
Vendor Impressions	specifies the number of impressions that are displayed during a day. The number of impressions are retrieved from Google AdWords data.
Vendor Clicks	specifies the number of click-throughs that occur during a day.
Click Thru Rate	specifies the number of clicks divided by the number of impressions. The number of clicks are retrieved from Google AdWords data.
Vendor Conversions	specifies the type (purchase, sale, signup, page view, or lead) that is recorded in the generated code, enabling you to achieve greater specificity in your conversion statistics. The type is retrieved from Google AdWords data.
Vendor Cost	specifies the amount that was paid for the click-throughs on a given day in the currency specified by the currency code. The amount that was paid is retrieved from Google AdWords data.
Vendor CPM	specifies the cost per 1,000 impressions. The cost is retrieved from Google AdWords data.

Field	Description
Clicks % Total Visits	specifies the number of clicks (from Google AdWords data) divided by the number of visits (from Web site log data).
General Visits	specifies the total number of visits minus the number of clicks.
All Sites Visits	specifies the total number of visits to all Web sites for one month.

Campaign Analysis

In order to perform a campaign analysis, SAS Web Analytics tracks both internal and external campaigns. An internal campaign (internal referrers) guides visitors through the Web site. An external campaign references an outside entity that sent a visitor to the Web site. The following rules apply:

* Multiple campaigns can be attached to a single session.

* Each session has at most one referring (external) campaign.

* Each requested page within a session can have at most one internal campaign. A session can have multiple internal campaigns, provided that a visitor requested two or more pages.

Business Example of a Search Engine Bid Campaign

One example of Search Engine Bid Management involves using Google AdWords. You advertise on Google, choosing keywords or phrases that relate to your specific business. When a visitor searches for a keyword or phrase that you have identified, an advertisement for your business can appear next to the search results. You can track the success of your campaign by tracking the number of times that a visitor clicked on your advertisement. This service is called Pay Per Click (PPC). You pay a fee only when a visitor clicks on your advertisement.

Design a Search Engine Bid Campaigns Report

For information about designing a Search Engine Bid Campaigns report, see the *SAS Web Report Studio User's Guide*.

Search Engine Paid Keyword Performance Report

About the Search Engine Paid Keyword Performance Report

The Search Engine Paid Keyword Performance report contains metrics that are used to determine the effectiveness of a specific campaign and keyword.

Input Data Requirements for the Search Engine Paid Keyword Performance Report

Before you view your report, you must enter input data for the fields that display when you select a report. The following is an example of the input window for the Search Engine Paid Keyword Performance report:

Display 15.1 *The Search Engine Paid Keyword Performance Report Input Window*

For the Search Engine Paid Keyword Performance report, the following input fields display:

Field	Description
Select Campaign	specifies the name of the campaign for which you want to collect data.
Select Keyword	specifies words or phrases that are specific to your business, and for which you can successfully search.
Select Start Date	specifies the first date of your report.
Select End Date	specifies the last date of your report.

Click the down arrow in the **Select Campaign** and **Select Keyword** fields to select a campaign or keyword, or click the ⌕ icon to search for a campaign or keyword. Use the calendar or the menu beside the date fields to enter the dates for which you want to create your report.

Example of the Search Engine Paid Keyword Performance Report

Here is an example of the Search Engine Paid Keyword Performance report:

Display 15.2 *Search Engine Paid Keyword Performance Report*

Description of the Fields in the Search Engine Paid Keyword Performance Report

The following table describes the variables in the report:

Field	Description
Campaign	specifies the name of the campaign for which you want to collect data.
Keyword	specifies words or phrases that are specific to your business, and for which you can successfully search.
Currency ISO Code	specifies the ISO currency code that is associated with a specific campaign.
Impressions	specifies the number of impressions that are displayed during a day.

Field	Description
Click Thrus	specifies the number of click-throughs that occur during a day.
Click Thru Rate	specifies the number of clicks divided by the number of impressions.
Cost	specifies the amount that was paid for the click-through on a given day in the currency that is specified in the currency code.
Avg Position	specifies the average position of all advertisements for a keyword and campaign combination for one day.
Max Bid	specifies the maximum bid for a keyword within a campaign on one day.
Current Bid	specifies the maximum amount that was bid for a keyword within a campaign on one day.
Cum CTR Trend	specifies the trend of a cumulative click-through rate. A cumulative click-through rate is equal to the number of cumulative clicks divided by the number of cumulative impressions.

Note: All data in this report is retrieved from Google AdWords.

Trend Analysis for the Search Engine Paid Keyword Performance Report

A trend analysis is performed on each campaign, keyword, and currency code combination using the cumulative click-through rate. A trend analysis will be generated if the following criteria are met:

- If the period of the report is less than 35 days, the trending data that is collected contains the end date –35.

- A campaign, keyword, and currency code combination has at least 12 days of impression activity.

- Total click activity during the trending period is >0.

If any of these criteria are not met, then the cumulative click-through rate trend is not changed.

Design a Search Engine Paid Keyword Performance Report

For information about designing a Search Engine Paid Keyword Performance report, see the *SAS Web Report Studio User's Guide*.

Glossary

AdWords
Google's pay-per-click (PPC) advertising product. AdWords advertisers create and budget campaigns that contain keywords that trigger their ads. The ads for relevant searches are displayed as Sponsored Links.

bytes received
the number of bytes that a Web server has received from a particular client browser. Most Web server log files do not record bytes received. See also bytes sent.

bytes sent
the total number of bytes that a server has delivered in response to a request. Because of retransmissions and network problems, bytes sent can sometimes be larger than the size in bytes of the resource or file that was received. Bytes sent is sometimes referred to as bytes transferred.

clickstream analysis
the analysis and interpretation of the actions of Web site visitors. These actions are recorded in the Web log as a chain of time-ordered related events, such as a trail of mouse clicks that a visitor leaves. The purpose of clickstream analysis is to understand and predict the actions of visitors as well as the paths that visitors take through a site. This analysis typically involves data-mining techniques such as identifying sequences and associations.

click-through
the act of navigating to a Web page by selecting a link in an e-mail message. See also page-open.

content group
a collection of pages within a Web site that share similar content or provide similar services to visitors. This subset of the Web site can be considered as a separate Web site in order to enable Web analyses that are usually available only for an entire Web site.

entry page
the first page that a visitor views when entering a Web site.

entry point
the first page that an Internet visitor views when visiting a Web site. In SAS Web Analytics, the entry point page marks the start of a session. See also exit point.

ETL (extract, transform, load) process
the process of extracting data from a data source, transforming the data based on your business rules, and loading the data into your data warehouse.

exit page
the last page that a visitor views before leaving a Web site.

exit point
the last page that a visitor views before leaving a Web site. In SAS Web Analytics, the exit point marks the end of a session.

funnel
a sequence of Web pages or URLs.

funnel definition
a sequence of up to seven Web pages or URLs that have an indicator that shows whether the URLs are adjacent. Reports can be created from a funnel definition.

funnel report
a report that provides a detailed description of any sequential process on a Web site, such as a sequence of Web pages that are visited. For example, a funnel report can be used to determine the page from which users leave a particular sequence of Web pages. The report can also be used to determine how many visitors visit a group of pages in a specific sequence.

hit
the result of a successful request (sent to a Web server) for a resource such as an HTML page, a GIF file, or an executable file. Each hit generates an entry in a Web server log file. By contrast, a page request (a particular type of hit) does not include the objects on the page. Requests for an HTML file and a GIF file are both considered to be hits, but only the request for the HTML file is typically considered to be a page request. See also page request.

interactive funnel
a funnel definition from which a report can be created in real time. See also funnel definition.

Key Performance Indicator
a measurement that shows whether an organization is progressing toward its stated goals. Short form: KPI.

KPI
See Key Performance Indicator.

measure
a data item whose values are aggregated (unless otherwise specified) and which can be used in computations or analytical expressions.

metric
any standard of measurement that is used as a basis for evaluation or comparison. For example, ROI (return on investment) is a metric that is commonly used by businesses as a basis for making decisions, and bytes per second throughput is a common performance metric.

organic search result
the method by which a user enters a Web site. The user accesses the Web site through a link within a search engine result page that is not a paid keyword link.

page count
the total number of pages identified in a Web server log file. The page count does not include objects on a Web page, such as GIF files or audio files. Page count and page views are synonyms. See also file count and hit.

page request
an attempt to access a Web page. Each page request generates an entry in a log file. Unlike a hit, a page request does not include the objects on the page, such as GIF files and audio files. A hit includes all objects on the page as well as the page itself. See also visit and hit.

portlet
a Web component that is managed by a Web application and that is aggregated with other portlets to form a page within the application. A portlet processes requests from the user and generates dynamic content.

portlet
a Web component that is managed by a Web application and that is aggregated with other portlets to form a page within the application. Portlets can process requests from the user and generate dynamic content.

referrer
a Web page that provides a link to another page. See also referring domain.

referrer ID
the URL of the Web page that a visitor clicked on in order to visit the current page.

report definition
a specification that is used for generating a report. A report definition includes information such as the table and level, the names of the variables, the report style, and other attributes.

request
an attempt to access a Web page or a resource on a Web server. A request can be either a page request or a hit. See also page request and hit.

Search Engine Bid Management
the analytics used to optimize the keywords that are selected within search engine marketing campaigns.

search engine bid optimization
the process of refining the keywords used within search engine marketing campaigns to optimize the number of keyword auction wins within a marketing budget. Increasing the number of auction wins increases the number of times campaign ads are displayed for search engine users, and therefore reduces the overall marketing cost of the campaign.

segment
a group of Web site visitors with one or more common attributes that have been identified by a rule. Segments are created by using a type of predictive model called a decision tree. The decision tree uses a set of independent variables to determine whether a visitor will return to the Web site at some time in the future.

session
a period of activity that starts when a visitor first accesses a particular Web site and that ends when the visitor has not performed any actions at that Web site within a specified time interval (usually 30 minutes). A session ID is associated with each session, and the activity that occurs during the session is recorded in a Web server log file.

session ID
a unique number that is assigned to a Web site visitor and which is used to track the visitor's path and the time of entry and exit.

static funnel
a funnel definition from which a report can be created during the Extract, Transform, Load (ETL) process. See also ETL (extract, transform, load) process, and funnel definition.

status code
in a Web server log file, a three-digit code that the server issues to describe the success or failure of a visitor's request for a file from a Web site. A status code between 200 and 299 indicates that the request was successful. A status code of 400 or greater indicates a bad request, an unauthorized request, a page not found, or some other type of failure.

traffic
the number of visits that are made to a Web site.

unique visitor
an individual visitor to a Web site. Unique visitors can be identified by various methods, such as an IP address+user agent, a cookie, or a login ID. Depending on how a visitor is identified, the visitor's identity might or might not correspond to an actual person.

visit
an instance of a person who uses a Web browser to access a Web site.

visitor
an inferred individual (derived by measuring browsers filtered for spiders and robots), within a designated reporting time frame, with activity that consists of one or more interactions with a site.

Web funnel
a report that analyzes a visitor's progression through a specified sequence of pages. Visitor inflow and outflow is shown for each step in the sequence.

Web mart
a shortened form of the term Web data mart, which refers to a data mart that contains information about a Web site's visits and related customer intelligence.

Web page overlay
a report that displays selected Web metrics overlaid on a Web page.

Web path
a sequence of page views that visitors traverse on a Web site.

Web path report
a report that analyzes the sequence of page views that visitors take on a Web site.

Web performance insight

a report that analyzes and determines the statistically significant metrics that drive a target metric while showing the forecast and historical predictions for the metrics. It is used for decision support and "what-if" analysis.

Web performance monitor

a report that analyzes and monitors the performance of metrics, and shows forecasts, trends, and performance metrics against a goal. It is used for decision support, spotting business trends, and tracking business objectives.

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Your Turn

We welcome your feedback.

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- If you have comments about the software, please send them to **suggest@sas.com**.