



SAS® for Customer Experience Analytics

Integrate online customer behavior data with offline data for better decision making

What does SAS® for Customer Experience Analytics do?

SAS for Customer Experience Analytics translates Web events into business context, enabling you to understand how well the online experience is working from your customer's perspective. It transforms what your customers are doing online into business-relevant insights, allowing analysis of detailed customer behavior – both from anonymous and identified customers.

Why is SAS® for Customer Experience Analytics important?

The solution helps you increase the breadth of your online analysis from technology-led page analysis to customer-oriented experience and behavioral analysis. The online channel is brought into the mainstream of your marketing, business and channel management activities. This enables targeting of customers based on online behavior and helps you understand the impact your online presence has on other channels, resulting in increased campaign conversion rates, both online and offline.

For whom is SAS® for Customer Experience Analytics designed?

This software as a service (SaaS) solution is designed for Web-based and multichannel organizations with a strategic investment in e-business that requires an in-depth understanding of the customer experience within the online channel and across other business channels. These organizations need to quantify the returns on their direct marketing and online advertising spending.

Customers have increasingly high expectations for their interactions with your organization. Whether visiting your website or talking to a call center representative, they expect to be recognized and treated consistently across all channels.

To get the proper context about what happens when customers visit your website, you need to capture detailed data about how they use your site, along with other attributes that help better describe those customers. It's critical that you translate the steady stream of Web data flooding your organization into a business context and integrate it into your mainstream marketing activities. This will enable your marketers to get answers to questions that can't be answered by traditional Web analytics solutions:

- Which customers prefer to research online and then purchase offline?
- Which online campaigns most successfully attracted customers that proved loyal and highly profitable?
- Which products are customers researching online so that I can make them an appropriate offer?

SAS for Customer Experience Analytics is a SaaS solution that captures every customer interaction on your website, transforms it into customer-centric knowledge and integrates it with other customer insight to provide a more complete picture of the customer. This approach lets you more effectively understand, model and ultimately market to these same customers. An efficient data collection mechanism reduces the total cost of ownership and immediately delivers customer insights to your organization.

Key Benefits

- **Gain a complete, unified view of the customer.** Go beyond capturing data about pages and clicks to capture the complete online behavior of customers at a detailed level – everything they saw and did, and everywhere they went. SAS for Customer Experience Analytics publishes this wealth of data into a customer experience data model that can be integrated with existing offline customer data sources. By combining these typically disparate data sources, SAS gives you a complete view of the customer, providing insight that can lead to more relevant offers and more efficient use of marketing resources.
- **Improve your multichannel contact strategy.** The solution provides the breadth of capabilities needed to turn customer experience insights into marketing campaign execution. Customers leave a wealth of information on your site that reveals their buying plans, significant life changes and other insights that are frequently never communicated to the marketers trying to sell to them. Capturing this Web intelligence and effectively integrating it with a library of personalized offers ready for presentation at the right moment will lead to a much improved customer experience.
- **Reduce total cost of ownership.** A single line of HTML code within the Web page supports the dynamic collection of complete, detailed, accurate customer interaction data without heavy tagging overhead. Changes to the page design are accounted for automatically during data capture, eliminating the need to continually re-tag the page.



In addition, changes to data elements or processes needing further analysis require no change in website tagging. Because you have all the detailed data, you can reinterpret its meaning and change your analysis without having to recapture new data. As a result, implementation can take as little as a few hours, while maintenance costs will be far less than data captured through traditional tagging methods.

- **Gain better insights, achieve better marketing performance.** Faced with increasing demands to deliver more results with the same staff, marketers often don't have the luxury of in-house expertise to develop the latest forecasting techniques for their marketing initiatives. That's why SAS includes prebuilt, proven predictive models that give marketers a forward-looking view of campaigns.

These analytic models help you understand the most significant business drivers, forecast how these drivers and business measures will perform in the future and run goal-seeking routines to determine the optimal levels needed for each business driver – without using a statistician. The bottom line? SAS helps you optimize your website's effectiveness to meet your goals.

Solution Overview

Open Data Model Supports Immediate Data Analysis and Integration

The solution houses all online data in an open, customer-centric data model that promotes further data exploration and analysis. Online data is logically structured within a predefined business context, enabling integration with existing customer data and allowing nontechnical staff to perform ad hoc reporting quickly and easily.

Anonymous Customer Behavior Capture

The solution treats everyone who visits your website – identifiable or not – as a customer, and the behavior is recorded over time. When a visitor is identified, any previous anonymous behavior is assigned automatically to that person, providing a much richer profile than would otherwise be possible.

Post-Data-Collection Contextualization/ Business Rules

Prebuilt data transformations further convert gathered data into information that you can analyze and report on at a customer level. These transformations occur through a parameter-driven application of business rules.

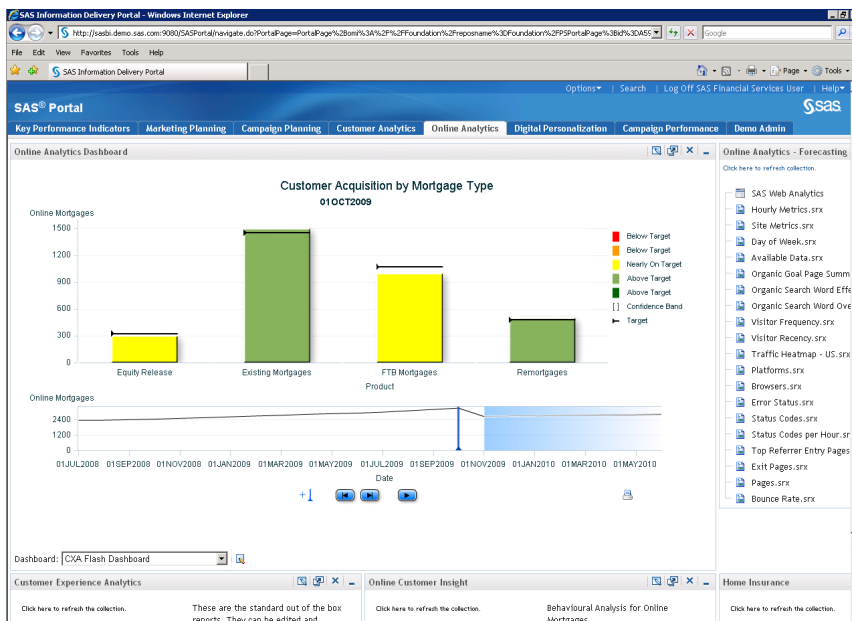
Because it's possible to put the data into its proper context within the solution, website administrators won't have to spend time applying new tags every time there's a change to the page design. Prebuilt data models allow for immediate data analysis and reporting, eliminating the burden on your IT staff to design a complex data loading and reporting infrastructure.

Self-Service Data Analysis

Web-based, easy-to-use reporting capabilities are designed specifically for users in business and marketing functions that want to view, interact, author and distribute both public and private reports. Decision makers can interactively get the information they need through Web-based OLAP analysis – driving faster and more focused business decisions while freeing IT staff, minimizing administrative overheads and maximizing resource utilization.

Data selection is simplified for nontechnical users by presenting data in everyday business terminology. As users' needs evolve, they can create their own ad hoc reports and use more sophisticated layout and query capabilities, such as defining custom calculations, complex filter combinations and other manipulations that you would expect of an enterprise-class business intelligence solution.

The solution features graphical, ad hoc reporting capabilities that quickly show how different campaigns drive the acquisition and retention of customers. Users can create, deploy and view interactive graphical dashboards easily, providing timely information on business goals and key performance indicators.



SAS for Customer Experience Analytics features graphical, ad hoc reporting capabilities, which quickly show how different campaigns drive the acquisition and retention of customers.

A Component of the SAS® Customer Intelligence Suite

SAS for Customer Experience Analytics fully integrates with the SAS Customer Intelligence suite, using an environment that's optimized for analyzing and executing campaigns at a customer level. With the SAS Customer Intelligence suite, all of the tools that marketers need to manage their multichannel targeted marketing efforts are just a few clicks away – within a unified environment.

SAS Marketing Automation enables multichannel, multiwave customer-specific campaign design and execution. Combine SAS for Customer Experience Analytics with SAS Marketing Optimization to discover the best possible offers for each individual customer. Further enhance the quality of each customer's experience by integrating with SAS Real-Time Decision Manager, which delivers real-time offers to your interactive customer channels.

Built-In Predictive Models, Forecasting and Goal-Seeking Routines

SAS for Customer Experience Analytics incorporates prebuilt analytics to help marketers project whether or not specific business goals will be met in the future, based on the performance drivers and metrics of a current marketing campaign. You can take things a step further by identifying the most significant underlying drivers of a particular business metric and presenting them in an easy-to-use business report. Goal-seeking capabilities are also available, allowing users to determine the optimal levels needed for each driver that affects a particular business goal. All of these advanced statistical and optimization routines are prebuilt and therefore do not require statistical expertise to run or develop them.

Key Features

Open Data Model for Integration of Offline and Online Data

- Stores data in a customer-centric, open data model.
- Translates technical online data into business-relevant information.
- Integrates the online customer data with existing customer data.

Post-Data-Collection Contextualization/Business Rules

- Utilizes parameterized business rules to allow for quick and easy adjustments with website changes – even retrospectively.
- Uses captured data immediately for reporting and further in-depth analysis.

Self-Service Data Analysis

- Intuitive wizards provide access to SAS capabilities – from basic reporting to complex analyses.
- Results can be delivered in HTML, RTF, text and/or PDF form. Most results also can be output as SAS data sets for further analysis with other tasks.
- An intuitive process-flow diagram facility allows users to organize, view and maintain their projects visually.
- Easily extend the range of business problems that can be solved quickly with the development and deployment of custom tasks that appear alongside the core product functionality.

OLAP Access, Visualization and Manipulation

- Supports drilling, slicing and pivoting as needed to explore the information, as well as the ability to drill through to the underlying detailed data.
- Calculation support includes: simple calculations, count analysis, relative contribution analysis and custom calculations (e.g., time-series analysis).
- Specific views on multidimensional information can be saved as bookmarks for easy reuse.
- Allows for slices from multidimensional information to be surfaced to other analytical SAS procedures for advanced analysis, including use in data mining procedures.

Built-In Predictive Models, Forecasting and Goal-Seeking Routines

- View easy-to-understand predictive models for each business goal.
- Customize goal-seeking routines that display what adjustments of a driver will deliver the desired increase or decrease in the target business goal.
- Forecast each business goal to enable forward-looking trends and expected outcomes.

Dynamic Data Collection

- Use a single line of HTML to efficiently collect all data from a page.
- Capture data exactly as it is seen in the browser window.
- Record virtually every action happening on a Web page.
- Collect data with a system that is compatible with any type of website configuration.
- Protect sensitive data using industry-standard encryption techniques.

Decision Support Administration

- Centrally administer users and manage access to reports and data.
- Set security on individual data and reports.
- Use a single point of control for all business data descriptions.
- Define authentication infrastructure (host, LDAP or Active Directory).

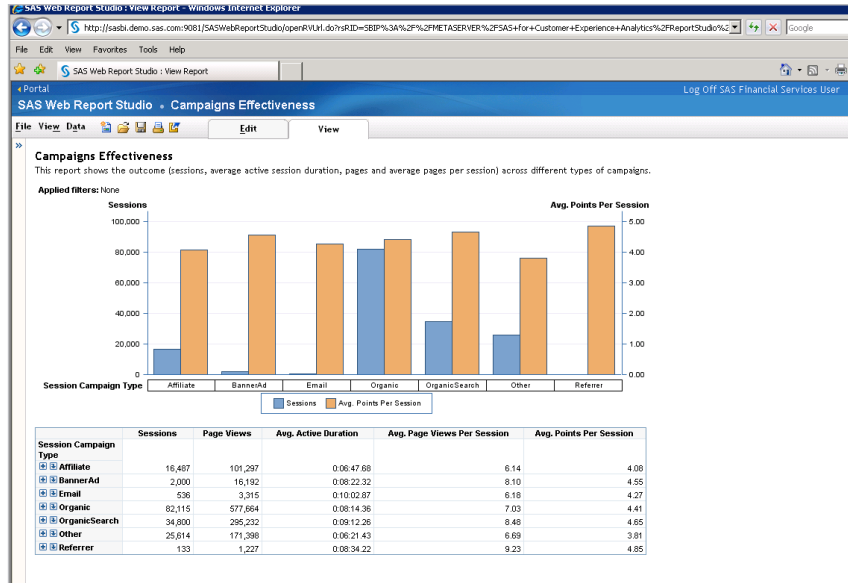
Dynamic Data Collection

The same single line of HTML is used on every Web page to automatically obtain page information, including what the customer does and sees on the page, as well as every interaction. All data in its most basic form – the ordering and timing of elements loading on a page, the hovering of a mouse over a selection, each keystroke in a form – can be recorded.

Accuracy is assured, and because there are no third-party issues to worry about, cookie blockers and firewalls are not obstacles to understanding. Privacy, security and data protection issues are rigorously managed, and sensitive data is encrypted using industry-standard encryption techniques, which mitigates security concerns.

Technical Requirements

SAS for Customer Experience Analytics is provided as a SaaS solution and requires only access to Internet Explorer.



The graphical, ad hoc reporting capabilities of SAS for Customer Experience Analytics quickly show how different campaigns drive customer acquisition and retention.