



## SAS® for Patron Value Optimization

Maximize loyalty, share of patron's gaming and entertainment budget, total value and ROI

### What does SAS® for Patron Value Optimization do?

Designed specifically for the gaming industry, SAS for Patron Value Optimization enables you to quantify the value of each patron and understand patron behaviors. With these insights and the solution's advanced analytics and campaign management tools, you can deliver the right marketing messages to the right patrons – encouraging their loyalty to you over the competition.

### Why is SAS® for Patron Value Optimization important?

By providing a 360-degree view of patrons, and capabilities to increase loyalty and improve marketing's overall effectiveness, SAS for Patron Value Optimization leads to a better return on marketing investment and a healthier bottom line. With an intuitive visual interface and the flexibility to take advantage of your existing infrastructure and systems, this solution is the most powerful, comprehensive marketing and patron intelligence offering available.

### For whom is SAS® for Patron Value Optimization designed?

SAS for Patron Value Optimization provides capabilities primarily for users within the marketing organization, including marketers who define communication strategies, executives who need reports on marketing effectiveness, campaign managers who create target segments and execute campaigns, and analysts who model and predict patron behavior.

Achieving competitive advantage in today's entertainment and hospitality environment begins with commitment to a new level of marketing precision. Gaming companies need to match patrons' increasingly selective spending habits with highly targeted offers. And to ensure that those offers strike the right financial balance to drive profits, gaming companies must base their campaigns on a true understanding of patron worth – i.e., how valuable each patron is for the business, or will potentially prove to be.

This kind of marketing edge requires a 360-degree view of each patron's activities across the property, from rooms and restaurants to casino, spa and entertainment. Of course, capturing and integrating data from these different areas present a technical challenge for many gaming companies – as do the analytical techniques that extract patron behavioral and financial insight from the data, and perform segmentation.

SAS for Patron Value Optimization answers these challenges and more, providing the most complete marketing solution specifically for the gaming industry.

It fully integrates the following processes:

- Consolidating and matching all patron activities across disparate channels back to the patron.
- Performing advanced segmentation analysis to not only group patrons by their past activities, but also predict their likely future behaviors.
- Delivering the right messages and incentives to patrons through campaign management.
- Assessing performance across all marketing activities to ensure profitability.

SAS for Patron Value Optimization delivers the comprehensive insight and marketing precision that you need to understand, incent, retain and *grow* patron value.

### Key benefits

- **Know and target your most profitable patrons.** By providing a complete picture of every patron's spending behavior, SAS for Patron Value Optimization surfaces a property's most valuable patrons, and gives you the insight to offer them the right incentives. You also gain insight for improving customer service.
- **Easily create marketing campaigns.** The solution's core component enables campaign managers to graphically create multichannel, multi-stage campaigns. Targeted campaign lists developed in SAS for Patron Value Optimization can also easily be incorporated into fulfillment channels, regardless of channel technology.
- **Track and improve marketing performance.** A reporting framework allows marketers to track and forecast the success of campaigns as they are running, while providing a consolidated view across all channels and interactions.
- **Lower total cost of ownership by maintaining compatibility with existing systems.** SAS for Patron Value Optimization can access data in any format from virtually any source. Therefore, existing investments in casino, lodging and property management systems (as well as other operational systems) can be extended, and enterprise data integration can be streamlined.



## Solution overview

SAS provides an intuitive environment for accomplishing all of the tasks that ensure successful marketing campaigns.

### Data integration, cleansing and enrichment

From ETL to data quality, SAS' comprehensive data management capabilities enable you to address every aspect of consolidating data into a complete and accurate view of your patrons. SAS for Patron Value Optimization can pull data from a variety of gaming and hospitality data sources, cleanse that data for integrity and store the data in either a SAS data warehouse or an existing data warehouse. Both business and technical users can easily create business rules to cleanse, standardize and augment patron data.

### Patron segmentation, profiling and testing

SAS for Patron Value Optimization provides graphically driven selection tools for determining the appropriate target audience for any campaign. Marketers can view histograms to determine trends and make selections, or they

can perform cell splits randomly or based on variables available in the patron data. Embedded cluster analysis also allows for advanced segmentation of patrons. Because such powerful tools can be used so easily, marketers can be more efficient and effective, producing smarter, better targeted, more profitable campaigns.

### Campaign planning, execution and management

With a portal-driven dashboard, marketers have a single point for managing all of their marketing activities. A campaign checklist provides a list of tasks required to complete any given campaign, and process-driven campaign flows make it easier to create campaigns quickly and simultaneously manage hundreds of campaigns every day. This checklist includes an approval step that requires sign-off by designated individuals for each campaign. In addition, each step of the campaign process flow is presented in a way that reduces diagram clutter, thus enabling users to create simple or complex campaigns in a manageable way.

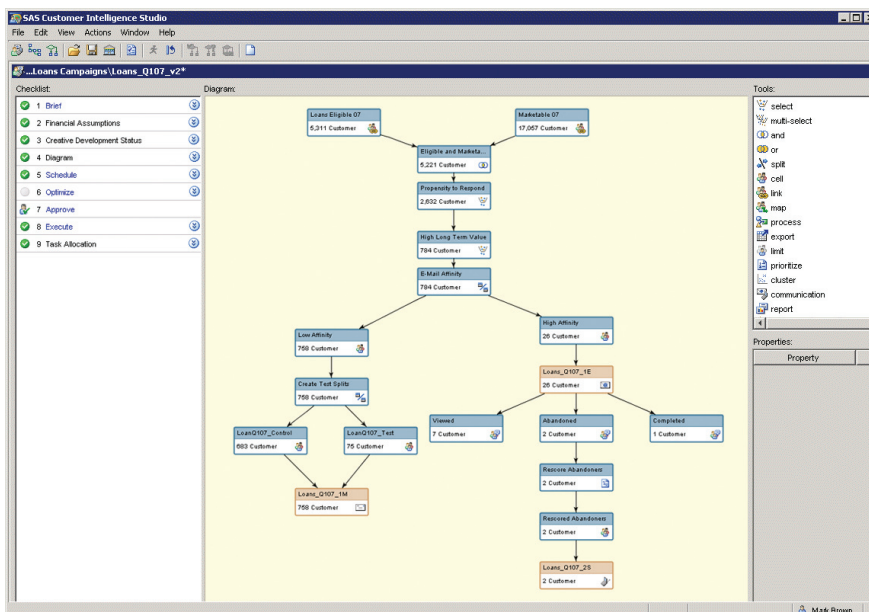
SAS for Patron Value Optimization also allows for various levels of authorization and enables campaign diagrams to be shared and linked. This means, for example, that your chief privacy officer – and no one else – can maintain a global “do-not-call” policy that updates automatically over time and is incorporated into every planned communication. By logging all system activities and using an “open-box” approach to analytics across the entire platform, audits and related activities can be completed more easily. Only SAS lets you perform “analytic auditing,” so you can ensure that marketing models comply with any current or future legislation.

### Advanced analytics

Using SAS for Patron Value Optimization, marketers can view interactive reports dynamically to profile patrons and perform quality assurance on campaign selections. They can also incorporate the results of predictive analytics into campaigns. The interface provides powerful clustering and segmentation capabilities, as well as direct integration with SAS® Enterprise Miner™, the industry standard for data mining – which is included to ensure that communications are backed up by sound intelligence.

### Integrated business intelligence

Only SAS for Patron Value Optimization combines patron intelligence with business intelligence in one solution. Thus, users can easily and quickly view the patron and campaign performance data that they need, in their choice of format: Web report, executive dashboard, OLAP analysis, e-mail alerts, and even SAS-generated tables and charts in Microsoft Office.



**SAS® for Patron Value Optimization allows users to build simple or complex campaigns using an intuitive graphical interface.**

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## Technical requirements

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SAS for Patron Value Optimization is an open, Java-compliant solution with components installed on clients, a midtier and an application server tier. Since platform support changes over time, contact SAS for a current list.

### Client applications

#### Supported platforms

- Windows 2000 Service Pack 3 or later
- Windows XP Service Pack 2 or later
- Windows is supported on the 32-bit editions

#### Hardware and memory requirements

- Intel or compatible processor

### Midtier applications

#### Supported platforms

- Microsoft Windows
- Sun Solaris for SPARC
- HP-UX
- IBM AIX

#### Hardware and memory requirements

The minimum memory recommended for the midtier application is 2GB. Memory requirements may vary based on other Web applications running, the number of total and concurrent users accessing the SAS for Patron Value Optimization applications, and the amount of content users access.

#### Additional software required

- Application server
- BEA WebLogic or IBM WebSphere Platform Suite for SAS\*
- Xyθος WebFile Server
- Java 2 Software Developer Kit

\*OEM available from SAS; others included with the solution.

## Key features

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### Data integration, cleansing and enrichment

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- Allows the creation of householding site ID based on one or more conditions.
- Lets you create or enhance the rules used to parse the parts of the names, addresses, e-mail addresses, etc.
- Determines the gender of an individual for targeted marketing purposes.
- Provides an interactive approach to data quality that eliminates duplication of effort when creating business rules.
- Integrating data quality capabilities within business intelligence solutions creates high-impact results, ensuring an acceptable return on investment.

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### Patron segmentation, profiling and testing

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- Create selection criteria using pick lists and histograms.
- Multiselection nodes enable complex segment creation but decrease diagram clutter.
- Wildcard selection support.
- Create test cells and other splits using percentage, count and analytic techniques.
- Calculated columns that include count, sum, average and other formulaic expressions.
- Decile and quartile ranks for banding, ranking and selection.
- Customizable filters for list creation.
- Waterfall view of selection criteria.
- Select from any entity level (e.g., household, patron, account, business) within a campaign.
- Switch between entity levels while building campaigns.
- Custom node creation that easily extends capabilities beyond the standard offering to address all client segmentation, profiling and testing requirements.

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### Campaign planning, execution and management

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- Easily create, view and edit campaign diagrams.
- Easy sharing and reuse of campaigns and campaign components.
- Prioritize communications within and across campaigns.
- Configurable views into the marketing process.
- Approval processes to ensure proper sign-offs before campaigns are executed.
- Configurable ROI estimation, break-even analysis, budget-to-actual comparison and what-if analysis at any level of the campaign structure.
- Capture costs for a campaign on a per-piece or per-thousand basis and then calculate the cost for each segment.
- Estimate and track multiple costs and revenues for any offer.
- Incorporate campaign- or communication-specific data from templates.
- Create specific campaign definitions and campaign fields, as well as communication definitions and communication fields.
- Gantt chart view of campaigns and communications.
- A Web user interface allows remote or distributed users to create and schedule end-to-end campaigns.
- View campaign-related creative collateral – including brochures, inserts, e-mail, banner ads and other documents.
- Create business descriptions for all fields.
- Direct and indirect response management.
- Campaign briefs for planned or active campaigns.
- Custom node creation that easily extends capabilities beyond the standard offering to address all client planning, execution and management requirements.

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### Advanced analytics

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- Drag-and-drop clustering for advanced segmentation and analysis.
- In-line visual analysis to refine campaign plans.
- Register and execute models.
- Import models, analyses and macros (called SAS Stored Processes) created with a drag-and-drop interface.

## SAS® application server tier

### Supported platforms

- Microsoft Windows
- Sun Solaris for SPARC
- HP-UX
- AIX
- HP PA-RISC

### Hardware and memory requirements

See SAS 9.1 system requirements under the relevant operating system:

<http://support.sas.com/documentation/installcenter/index.html>.

### Database compatibility

SAS for Patron Value Optimization can connect to various databases using SAS/ACCESS®. The databases below are compatible. Contact SAS Technical Support to determine if SAS has tested against any new database releases.

- SAS Scalable Performance Data Server®
- HP Neoview
- IBM DB2/UDB
- Microsoft SQL Server
- Netezza
- Oracle
- Teradata

Please contact your SAS representative for additional details about technical requirements.

- Custom node creation that easily extends capabilities beyond the standard offering to support all advanced analytical requirements.
- Support for statistically significant sample sizes to assure proper sizing of control groups.
- SAS and SQL code can be easily incorporated in a graphically designed campaign.
- Patron scores generated from analytics models can be used just like any other data column.

### Integrated business intelligence

- Role-based, interactive interfaces for report building and distribution.
- Data is presented in business terms so nontechnical users can choose the information they need.
- Lets you define report layout: add tables, graphs, table of contents, footers and headers.
- Perform OLAP-specific interactions such as drilling and expanding tables and graphs, pivoting crosstab dimensions and switching dimensions and measures.
- Share reports with large and diverse audiences through report-bursting capabilities.
- Save predefined reports and information with report archiving.
- Allows all Microsoft Word, Excel and PowerPoint users access to approved enterprise data for extended analysis capabilities.
- Design custom dashboards in minutes from virtually any data source and link to indicators that drive your organization's performance.

## About SAS

SAS is the leader in business analytics software and services, and the largest independent vendor in the business intelligence market. Through innovative solutions delivered within an integrated framework, SAS helps customers at 45,000 sites improve performance and deliver value by making better decisions faster. Since 1976, SAS has been giving customers around the world THE POWER TO KNOW®.

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