

PASW® Modeler

> Achieve Your Goals with Deep, Predictive Insight



PASW Modeler* transforms data into a decision-making asset

Imagine if you could lower your marketing costs by 30 percent, or reduce delinquent loan repayments by 20 percent, by anticipating your customers' behavior and taking action. Improvements like these are possible with data mining, which reveals hidden patterns in your data that can give you the insight to make more timely and profitable decisions.

PASW Modeler from SPSS Inc. is a powerful, versatile data mining workbench that is the ideal choice for today's data-rich organizations. It uses a wide array of predictive and descriptive techniques to uncover patterns and trends in your data. This information can help you improve current processes and make decisions that positively impact your business.

With PASW Modeler, you can discover more subtle patterns or trends because you can explore a broader range of data. Only with PASW Modeler can you directly and easily access text, Web, and survey data, and incorporate these additional types of data into your predictive models. PASW Modeler integrates with your organization's existing technology infrastructure and provides flexible deployment options to ensure that accurate predictive insight is available where and when it is needed. You can even embed models created with PASW Modeler into your operational systems to drive business process enhancement and optimal decision making across your organization.

Data-driven organizations of all kinds—commercial, public sector, and academic—can apply the prediction and insight obtained with PASW Modeler in various ways.

For example, they can anticipate future developments and become proactive, rather than reactive, in critical areas such as:

- Customer relationship management
- Fraud detection and prevention
- Risk control
- Healthcare administration and scientific research
- Program management
- Public safety and homeland security
- Student lifecycle management
- Donor development

PASW Modeler's breadth and depth of data mining techniques improves your organization's ability to address complex business problems. Its capabilities enable you to conduct data mining easily, efficiently, and rapidly, and to extract even deeper insight from both your structured and unstructured data. Data-based decisions provide more timely, more relevant, and ultimately more satisfying experiences for your customers, citizens, students, or other constituents. The result is improved performance, higher return on all of your data assets—and sustained success for your organization.

* PASW Modeler, formerly called Clementine®, is part of SPSS Inc.'s Predictive Analytics Software portfolio.

Cable provider reduces customer churn

Cablecom GmbH, Switzerland's largest cable network provider, relies on predictive analytics to reduce customer churn, a common challenge in the highly competitive telecommunications market.

Realizing that the key to tackling churn is to identify when customers become dissatisfied and before they make the decision to switch to an alternate provider, the company turned to SPSS Inc. software to more accurately identify those who are likely to churn, and take proactive action to improve retention.

Cablecom collects detailed customer feedback at specific points in the customer lifecycle to gain a complete picture of its subscribers. Then, using PASW Modeler, it analyzes survey data to identify key indicators of churn and score customers according to how likely they are to defect. A special retention team contacts customers at risk of switching to a competitor to discuss their issues and suggest solutions. Meanwhile, the sales team contacts satisfied customers with cross-sell and up-sell opportunities.

Thanks to PASW Modeler, Cablecom understands its customers better and with a high degree of accuracy can predict—those who may be unhappy with the company's services. Cross-selling opportunities can also be identified more easily, and overall customer churn has dropped.



Gain fast, accurate insight and prediction

Your organization has likely invested heavily in databases, reporting, enterprise resource planning (ERP), business intelligence, online analytical processing (OLAP), and other technologies to help you manage your business. The challenge is how to efficiently mine the information stored in these disparate systems so you can anticipate change—and take effective action based on your findings.

PASW Modeler's unmatched productivity helps you turn these systems and their data into valuable information assets your organization can leverage to solve real business problems. With PASW Modeler, you can speed up the entire data mining process—from business understanding through data access and preparation to model deployment—so you can begin to apply insight immediately and start using those results faster.

Accelerate the entire data mining process

PASW Modeler's pioneering graphical interface makes it easy for your analysts to focus on business problems without spending time on more mundane programming tasks. As they work, interactive “streams” visually map the data mining process, allowing them to interact with information at any point and develop models quickly and confidently.

By relieving analysts of non-productive technical tasks, PASW Modeler enables them to concentrate on finding answers to your business questions, so they can obtain and deploy results faster and with greater impact. And because it supports business understanding and deployment in addition to the technical aspects of data mining, PASW Modeler allows data miners, analysts, and other business users to collaborate on projects that will solve a wide range of business problems.

Using powerful automated modeling techniques, PASW Modeler can quickly identify the best analytic techniques and combine multiple predictions for more accurate results. This gives your organization an unprecedented level of insight and prediction.

In addition, PASW Modeler offers every feature data miners need in one place, eliminating the need to switch between tools. The result is greater efficiency, accuracy, and lower overhead costs.

Finally, PASW Modeler, provides an environment that makes it easy for analysts to collaborate and share best practices. This environment also enables you to manage and protect all of your analytical assets, processes, and results—ensuring that you gain the maximum value from them and deliver accurate, consistent results to your organization.

Use all of your data to strategic advantage

With PASW Modeler, you produce deeper insight and more accurate predictions because you utilize all of your data assets to create a complete view of your customers or constituents. You can extract key concepts, sentiments, and relationships in different languages from textual or “unstructured” data. And you can easily pull additional insight and predictive power from these channels to draw more reliable conclusions and take more effective action:

- With PASW Text Analytics, you can incorporate free-text data from documents, e-mails, blogs, RSS feeds, and other text sources in your analyses. You can describe relationships between concepts, attitudes, people, organizations, and events in a structured way and then include this information in your models.
- Through the Dimensions™ survey research products from SPSS Inc., you can include attitudinal data in your predictive models. This is a rich source of insight into your customers. By understanding their attitudes and feelings about your company, your competitors, and other trends, you prepare your organization to anticipate change rather than react to it.
- With PASW Modeler Web Mining, you can add information about Web site behavior to your analyses. You gain greater insight into what visitors do on your site, enabling you to market to them in more targeted and effective ways and fulfill their needs and expectations more successfully.

PASW Modeler works with a wide range of databases, spreadsheets, and flat files—including PASW Statistics Base,** SAS®, and Microsoft® Excel® files—and on a wide range of platforms, so you can leverage all of your data and obtain better outcomes. This greatly improves your organization’s ability to address complex business problems.

Integrate predictions into your business processes

PASW Modeler enables you to easily deploy your predictions into business processes using a variety of standard programming interfaces that support both real-time and batch analytical processes. Additional services are available to help you manage model performance and automate analytical processes. These services can save you time and ensure that your models are always up to date and accurate.

This best-of-breed analytical platform provides a scalable, reliable infrastructure that you can use to adopt a systematic approach to delivering predictions and recommendations within your most critical business processes.

Adopting this systematic approach to your data mining solution will save you time and effort, protect your analytical investment, and help you gain consistent, accurate results which you can easily share with stakeholders throughout your organization.

Achieve outstanding scalability and openness

PASW Modeler’s open architecture enables you to access data and deploy models, predictions, and insight to decision makers and automated operational systems.

For example, you can provide predictive results to your:

- Call center staff, helping them to offer additional products or services that customers are likely to accept—increasing revenues without significantly increasing costs

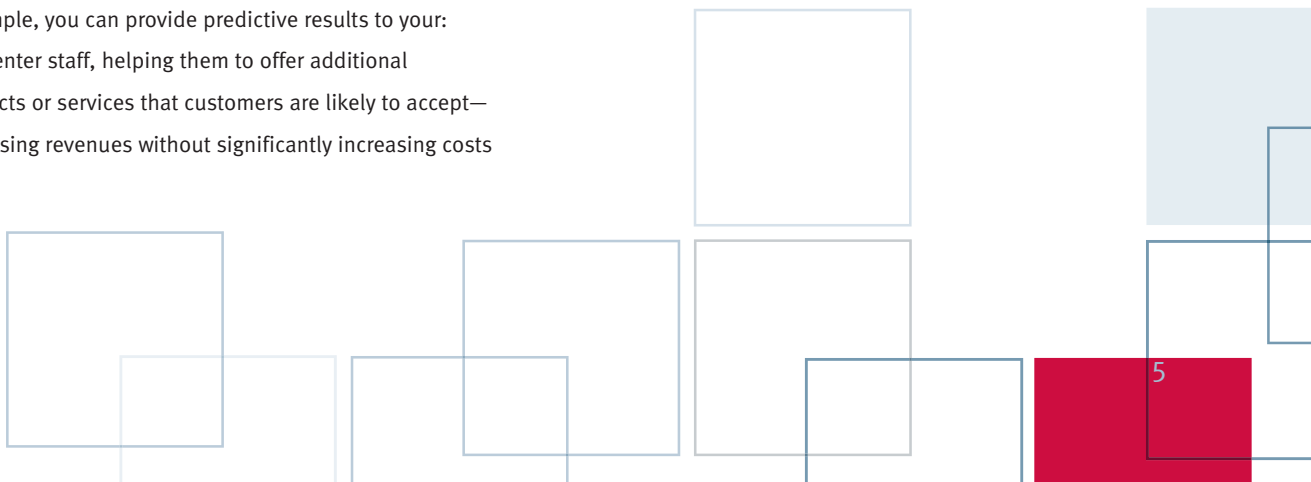
- Customer-facing staff, so they can up-sell and cross-sell to current customers and retain those likely to churn—increasing the profitability of your customer base
- Web site, making it easier for customers to find and purchase the products they want—increasing the profitability of this channel

PASW Modeler makes the best use of your IT infrastructure, so you can perform data mining within existing databases and score millions of records in a matter of minutes without additional hardware requirements.

Small to mid-sized organizations will find that PASW Modeler can efficiently analyze the amounts of data they generate. If your data mining needs grow in volume or complexity, there is a smooth upgrade path to our enterprise-level offering, PASW Modeler Server, which enables multiple data miners to work simultaneously without straining computing resources.

In addition, PASW Modeler provides explicit support for the CRoss-Industry Standard Process for Data Mining (CRISP-DM), the industry standard methodology that ensures timely, reliable results with data mining. SPSS Inc. was a founding member of the consortium that developed this methodology, and continues to play a leading role in its evolution.

** PASW Statistics Base, formerly called SPSS Statistics Base, is part of SPSS Inc.’s Predictive Analytics Software portfolio.



Find the best solutions to your business challenges

PASW Modeler is a flexible, comprehensive data mining workbench that allows you to focus on addressing your organization's specific business challenges. With PASW Modeler, analysts and business users alike can collaboratively develop predictive models and deploy them to decision makers and operational systems. This enables your organization to achieve more rapid, informed decision making, enhanced responsiveness, and higher overall ROI.

Build stronger customer relationships

Using PASW Modeler, you can understand your customers in more subtle and useful ways and predict their behavior more accurately than you can with any other method. This helps you develop more effective customer acquisition and retention strategies, increase customer loyalty, and market to customers and prospects more cost effectively. For example:

- Banco Espírito Santo, one of the oldest banks in Portugal, fights the spread of an eroding customer base with SPSS Inc. predictive analytics—identifying key behaviors of customers likely to leave the bank. By focusing retention efforts on its most valuable customers, the bank reduced attrition by 15 to 20 percent and increased profits by 10 to 20 percent.
- Cabrillo College, a two-year community college in California serving almost 15,000 undergraduates, uses PASW Modeler to predict which students are less likely to return to school. This helps faculty and administrators improve retention by providing appropriate counseling, financial aid packages, and curriculum offerings. Partly due to these programs, Cabrillo ranks third among the state's community colleges for the percentage of students successfully transferring to the University of California system.

- Dutch insurance firm FBTO Verzekeringen achieved a 448 percent return on investment in just under three months by using PASW Modeler to help plan and optimize its outbound marketing campaigns across various product groups and channels. This approach resulted in a 40 percent increase in outbound conversions and a 35 percent decrease in mailing costs.

PASW Modeler helps you identify the kinds of customers or constituents you have, look for similarities or differences in their behavior, and ensure that your product or service strategy and customer processes are based on actual behavior and not guesswork.

Control risk, combat fraud

PASW Modeler helps your organization efficiently and reliably analyze many variables related to risk, enabling you to evaluate the various risks you face. You can detect suspicious circumstances and analyze risk using a flexible, comprehensive set of techniques, including risk scoring and anomaly detection.

- A U.K. energy utility uses PASW Modeler to analyze five million customer records so that it can improve sales and customer service while minimizing write-offs due to non-payment. The company also uses data mining to improve the efficiency of its payment-handling processes.
- A U.S. state tax agency developed predictive scores enabling it to focus on the organizations most likely to have underpaid their taxes, so it could devote investigative resources to those cases. This enabled the agency to increase revenues without increasing staff costs.

If fraud or improper payments are your primary concern, PASW Modeler helps you focus investigative resources on the transactions that are most likely to be fraudulent—enabling both commercial organizations and government agencies to increase their success rates and reduce costs. For example:

- A U.S. healthcare services organization uses PASW Modeler to flag suspicious medical claims. Formerly, the process required two weeks. Now, it takes only ten minutes, and has detected more than 200 times as many fraudulent claims as the old process.

PASW Modeler streamlines the process of anomaly detection, enabling analysts to identify instances of unusual behavior more quickly. And because its

predictive models can be updated easily, your organization can continue to detect unusual situations, even when fraudsters change their tactics.

Agencies involved in intelligence work use PASW Modeler to uncover patterns in relationships or behavior. State and local law enforcement agencies use it to solve “cold cases” and anticipate future criminal behavior. One software company combined its mapping capabilities with PASW Modeler’s pattern recognition technologies to show where violent crimes were most likely to occur in a particular city—a good example of PASW Modeler’s flexibility and interoperability with other solutions.



Count on a high ROI

PASW Modeler is a perfect fit to the data mining process. Its comprehensive and integrated capabilities enable data miners to create any analysis easily, promoting high productivity and an improved return on investment (ROI).

Organizations that use the prediction and insight gained through PASW Modeler to increase their understanding of the attitudes and behavior of the people they serve will see significant, quantifiable results. Businesses of all types have found that they can attract customers, strengthen their loyalty, reduce customer attrition or “churn” more cost effectively, and reduce risk. Public sector organizations can achieve similar goals.

Thanks to PASW Modeler’s integration with SPSS Inc.’s predictive applications and other information systems, your organization can guide daily decisions and recommendations, as well as long-range planning, with insight into current conditions and future events.

By providing this valuable insight, PASW Modeler plays a major role in transforming your organization into a Predictive Enterprise—one that uses insights gained from analyzing data to direct, optimize, and automate decision making in pursuit of its goals.



About SPSS Inc.

SPSS Inc. (NASDAQ: SPSS) is a leading global provider of predictive analytics software and solutions. The company’s predictive analytics technology improves business processes by giving organizations consistent control over decisions made every day. By incorporating predictive analytics into their daily operations, organizations become Predictive Enterprises—able to direct and automate decisions to meet business goals and achieve measurable competitive advantage.

More than 250,000 public sector, academic, and commercial customers rely on SPSS Inc. technology to help them increase revenue, reduce costs, and detect and prevent fraud. Founded in 1968, SPSS Inc. is headquartered in Chicago, Illinois. For additional information, please visit www.spss.com.

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Services to ensure your success

Our consulting services staff is an important factor in helping you achieve the best possible results with PASW Modeler. Providing a variety of services, SPSS Inc. consultants use their business and technical expertise to guide your staff and transfer our knowledge for your benefit. This helps you realize an even higher return on your investment in predictive analytics solutions.

SPSS Inc. also offers a full range of global education opportunities—including convenient Web-based instruction—and responsive technical and customer support worldwide.

To learn more about PASW Modeler, call **1.800.543.2185** (toll-free within the U.S.) or **+1.312.261.6565** (worldwide), or visit www.spss.com/modeling/modeler. For SPSS Inc. office locations and telephone numbers go to www.spss.com/worldwide.

