

Get to know the IBM SPSS product portfolio

Advanced analytics that help organizations anticipate change and take action to improve outcomes



Contents

1 About the product portfolio

Use the predictive analytics capabilities of SPSS products in your daily decision making to help improve outcomes.

2 Predictive and advanced analytics

Use statistical analysis, data and text mining, as well as predictive modeling to find opportunities, improve efficiency and minimize risk.

3 Decision management and deployment

Integrate analytical results into your operations to help improve business processes, anticipate outcomes and deliver results to decision makers.

About the product portfolio

Predictive analytics software helps organizations use data in their daily decision making, helping to substantially improve outcomes. Organizations in business, government, non-profits and academia can capture information about people's attitudes and opinions, anticipate the potential outcomes of interactions before they occur and act on their insights by embedding analytic results into business processes.

IBM® SPSS® solutions are key components of the IBM analytics portfolio. These products help organizations make more informed and optimized decisions in functional areas for improving outcomes and managing risk. SPSS solutions enable your organization to apply analytics to decision making when needed. They are designed to work together to address the full spectrum of analytic needs but can also function independently. Organizations can benefit from analytics faster when multiple capabilities are integrated into a single solution.

SPSS software supports:

- *Predictive and advanced analytics*
IBM SPSS Statistics and its modules and IBM SPSS Modeler are industry-leading products that are recognized for their ability to help organizations turn data into insight by providing advanced analytics, predictive analytics and data and text mining capabilities.
- *Decision management and deployment*
IBM SPSS Collaboration and Deployment Services combine a disciplined, security-rich and collaborative approach to analytics with decision management capabilities. As a result, these solutions can infuse predictive intelligence into everyday business decisions.

Predictive and advanced analytics

What if you could get more sophisticated insights from your data to help you anticipate what will happen next? With IBM SPSS predictive and advanced analytics, you can use statistical analysis, data and text mining and predictive modeling to proactively find opportunities, improve efficiency and minimize risk. The SPSS Statistics suite of products enables you to efficiently analyze information and deliver comprehensive results.

The SPSS Modeler can help you discover hidden relationships in your data and anticipate the outcomes of future interactions.

IBM SPSS Statistics

The IBM SPSS Statistics suite has helped financial institutions detect fraud faster, resulting in significant cost savings. Academic organizations have supported the work of researchers with these comprehensive statistics solutions, improving their ability to attract and retain the right mix of students. These solutions have also helped government agencies improve performance and control costs.

The Memphis Police Department used SPSS Statistics solutions to enhance its crime-fighting techniques, reducing serious crime by more than 30 percent, including a 15 percent reduction in violent crimes.¹

This integrated set of products addresses the entire analytical process, from planning to data collection to analysis, reporting and deployment. The SPSS Statistics product set includes specialized capabilities that can help your organization increase revenue, outperform competitors, conduct research and make better decisions.

SPSS Statistics editions

Specialized modules are available to complement all IBM SPSS Statistics editions.

SPSS Statistics Standard

The SPSS Statistics Base module follows the analytical process from start to finish. In addition to the data preparation, data management, output management and charting features that are now available in all SPSS Statistics modules, this module provides you with the most frequently used procedures for data analysis.

SPSS Advanced Statistics

SPSS Advanced Statistics includes powerful multivariate techniques that include both generalized linear and linear mixed models. It also includes generalized estimating, mixed level models, general linear models, variance component estimation and multivariate analysis of variance. MANOVA, Kaplan-Meier estimation, Cox regression, HILOGLINEAR, log-linear and survival analysis are also included in this module.

SPSS Amos

With the SPSS Amos solution, you can build models that more realistically reflect complex relationships using this intuitive structural equation modeling software. You can use observed variables, such as survey data, or latent variables, such as satisfaction, to predict any other numeric variable.

SPSS Bootstrapping

With this module, researchers and analysts can use bootstrapping techniques to help ensure that your models are stable and dependable. They can reliably estimate the standard errors and confidence intervals of a population parameter, such as means, median, proportion, odds ratio, correlation coefficient, regression coefficient and more.

SPSS Categories

The SPSS Categories solution helps you realize the full potential of your categorical data with perceptual maps that include optimal scaling and dimension reduction techniques. You are able to analyze and interpret multivariate data and its relationships more conclusively.

SPSS Complex Samples

The SPSS Complex Samples solution allows you to incorporate complex sample designs into data analysis for more accurate analysis of complex sample data. Combine these samples with specialized planning tools and statistics to help reduce the risk of reaching incorrect or misleading inferences for stratified, clustered or multistage sampling.

SPSS Conjoint

Market researchers can use this module to learn what product attributes are important to consumers and what the most preferred attribute levels are while studying pricing and brand equity. This knowledge can then be used to develop additional products.

SPSS Custom Tables

The SPSS Custom Tables module includes a table builder preview, inferential statistics and data management capabilities, to help you more clearly communicate your survey, customer satisfaction, polling and compliance reporting results.

SPSS Data Preparation

The SPSS Data Prep module provides new techniques that will help to streamline the data preparation stage of the analytical process. Prepare for model building using complete individual and cross-variable data checks or to quickly find multivariate outliers. You can also preprocess data with various binning methods.

SPSS Decision Trees

You can create highly visual classification and decision trees directly in SPSS Statistics using this module for segmentation, stratification, prediction, data reduction and variable screening, interaction identification, category merging and discretizing continuous variables. Highly visual trees enable you to present results in an intuitive manner.

SPSS Direct Marketing

Marketers can confidently conduct recency, frequency and monetary value (RFM) analysis, cluster analysis and prospect profiling, without requiring a detailed understanding of statistics. They can also improve marketing campaigns with a postal code analysis using the SPSS Direct Marketing module.

SPSS Exact Tests

With SPSS Exact Tests, you can obtain correct p values, regardless of your data structure. Even if you have a small number of cases, have subset your data into fine breakdowns or have variables where 80 percent or more of the responses are in one category, this module will help.

SPSS Forecasting

SPSS Forecasting can help you improve forecasting capabilities by using full time-series analysis provided in this module, including multiple curve-fitting and smoothing models and methods for estimating autoregressive functions. The Expert Modeler can automatically determine which ARIMA (autoregressive integrated moving average) process or exponential smoothing model best fits your time-series and independent variables, thereby virtually eliminating the need for selection by trial and error.

“IBM SPSS Statistics enables us to get full mileage out of our data. The result is that we saved over one million annually, increased revenue and improved member satisfaction.”

— Calvin Bierley, Market Research Analyst, Boeing Employees' Credit Union

SPSS Missing Values

If values are missing from your data, this module can find some relationships between the missing values and other variables. In addition, the missing values procedure can estimate what the value would be if the data were not missing.

SPSS Neural Networks

You are able to model complex relationships between inputs and outputs or use this module to discover patterns in your data. Choose from algorithms that can be used for classification (categorical outcomes) and prediction (numerical outcomes). The two available algorithms are multilayer perceptron and radial basis function.

SPSS Regression

The SPSS Regression solution allows you to anticipate behavior or events when your data goes beyond the assumptions of linear regression techniques. It allows you to conduct multinomial or binary logistic regression and nonlinear regression, weighted least squares, two-stage least squares and probit analysis.

SPSS Text Analytics for Surveys

The SPSS Text Analytics for Surveys solution can code human languages to elicit useful information, allowing you to read and analyze thousands of lines of text generated by your surveys. The speed and cost-effectiveness of statistics-based systems results in a higher degree of accuracy with a lower degree of human intervention.

Predictive modeling

The powerful model building, evaluation and automation capabilities of SPSS predictive modeling and analysis solutions help companies acquire customers cost effectively, and keep their best customers longer while selling more to them.

With SPSS Modeler, XO Communications, a US communications service provider, achieved an estimated 142 percent reduction in revenue erosion for customers at most risk of churning. The company also saved \$10 million USD per year from increased customer retention and reduced customer service costs.²

SPSS predictive modeling solutions include four SPSS Modeler editions and SPSS Analytic Server.

SPSS Modeler Personal

SPSS Modeler Personal helps you solve business problems faster by revealing patterns and trends in your structured data, helping you gain deeper insights into your customers or constituents. You are able to design and build predictive models from your desktop.

SPSS Modeler Professional

With SPSS Modeler Professional, you can quickly discover patterns and trends in structured numerical data to model outcomes and make predictions that inform business decisions with predictive intelligence. This highly intuitive interface provides a range of advanced algorithms, data manipulation and automated modeling and data preparation techniques that support both business users and experts.

SPSS Modeler Premium

SPSS Modeler Premium adds to the capabilities of the professional edition with the inclusion of text analytics, entity analytics and social network analysis. Natural language processing techniques extract key concepts, sentiments and relationships from unstructured data and convert them to a structured format for predictive modeling. Entity analytics helps disambiguate identities of people, places and things to remove duplicates, find potential fraud and help improve modeling accuracy.

SPSS Modeler Gold

The capabilities of IBM Modeler Premium are extended with the ability to build and deploy predictive models directly into the business process, helping people or systems consistently make better customer-facing decisions. SPSS Modeler Gold also will help to improve outcomes by combining the insights gained from predictive analytics with existing business rules and systems. The SPSS Modeler Gold solution is available on-premise or on cloud.

SPSS Analytic Server

With this solution, the IBM predictive analytics platform can use data from Hadoop distributions to help you improve decisions and outcomes. An open, integrated data-centric architecture uses big data systems and is scalable to problems of almost any size. It supports popular Hadoop distributions and features a defined interface that incorporates new statistical algorithms designed to go to the data. In addition, the familiar IBM SPSS user interface hides the details of big data environments so that analysts can focus on analyzing the data.

SPSS Modeler and SPSS Analytic Server

The combination of SPSS Modeler and SPSS Analytic Server provide an integrated, accessible predictive analytics platform that will help you to improve decision outcomes. Users of all levels can discover insights in data that is stored in Hadoop distributions and use all accessible information through federation with traditional relational database management systems.

Decision management and deployment

With SPSS decision management and deployment solutions, you can integrate analytical results into your operations to help improve business processes, anticipate outcomes and deliver results to decision makers across your organization.

Infinity Property and Casualty Corporation use SPSS deployment products to improve the productivity and accuracy of its claims handling process. The result is 33 percent higher returns for subrogation, and a subrogation recovery increase of \$10 million a year.³

SPSS Modeler Gold

With SPSS Modeler Gold, you can build and deploy predictive models directly into your business processes and operational systems to help people or systems make the right decisions each time. SPSS Modeler Gold includes IBM Analytical Decision Management, thereby combining predictive analytics with rules, scoring and optimization to deliver recommended actions at the point of impact.

SPSS Predictive Analytics Enterprise

This solution deploys advanced and predictive analytical capabilities to operational systems with a full analysis and deployment technology option for predictive analytics from IBM. Descriptive and predictive analytics, data preparation, predictive modeling automation and cutting-edge intelligent analytics capabilities are unified into one solution to help you make smarter decisions. Decisions are optimized and automated to consistently help to provide better business outcomes.

SPSS Collaboration and Deployment Services

SPSS Collaboration and Deployment Services help you securely manage diverse analytical assets and foster greater collaboration between those who are developing them and using them. You can automate and integrate ongoing analytical processes for more reliable results. This solution enables you to provide the right people with the information they need to take timely and appropriate action.

SPSS Collaboration and Deployment Real-Time Scoring

This solution allows you to deploy real-time scoring into operational systems through standard interfaces and deliver on-demand scores and decisions to people and business applications. You can better integrate predictive outcomes as they are calculated into your operational systems to inform decisions in real time.

About IBM Business Analytics

IBM Analytics software delivers data-driven insights that help organizations work smarter and outperform their peers. This comprehensive portfolio includes solutions for business intelligence, predictive analytics and decision management, performance management and risk management.

Analytics solutions for business enable companies to identify and visualize trends and patterns in such areas as customer analytics which can have a profound effect on business performance. They can compare scenarios; anticipate potential threats and opportunities; better plan, budget and forecast resources; balance risks against expected returns; and work to meet regulatory requirements. By making analytics widely available, organizations can align tactical and strategic decision making to achieve business goals. For more information on IBM Analytics, visit ibm.com/analytics.

For more information

To explore the IBM SPSS portfolio, visit ibm.com/tryspss or to learn more about IBM Analytics, go to: ibm.com/analytics/us/en/technology

Contact us at ibm.biz/Bd4eGd.



© Copyright IBM Corporation 2016

IBM Corporation
Software Group
Route 100
Somers, NY 10589

Produced in the United States of America
April 2016

IBM, the IBM logo, and ibm.com are trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at “Copyright and trademark information” at www.ibm.com/legal/copytrade.shtml.

It is the user’s responsibility to evaluate and verify the operation of any other products or programs with IBM products and programs. The performance data and client examples cited are presented for illustrative purposes only. Actual performance results may vary depending on specific configurations and operating conditions.

This document is current as of the initial date of publication and may be changed by IBM at any time. Not all offerings are available in every country in which IBM operates.

THE INFORMATION IN THIS DOCUMENT IS PROVIDED “AS IS” WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING WITHOUT ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY OR CONDITION OF NONINFRINGEMENT. IBM products are warranted according to the terms and conditions of the agreements under which they are provided.

- 1 Memphis Police Dept Video (ibm.com/software/businesscasestudies?synkey=G86318217772S93)
- 2 IBM Case Study: XO Communications takes control of customer satisfaction (ibm.com/common/ssi/cgi-bin/ssialias?subtype=AB&infotype=PM&appname=SWGE_YT_YV_USEN&htmlfid=YTC03749USEN&attachment=YTC03749USEN.PDF)
- 3 Infinity Casualty and Trust Video (ibm.com/software/businesscasestudies/us/en/corp?synkey=U458009143664F01)



Please Recycle