



Data Mining in Banking & Finance with *STATISTICA* Data Miner

To understand customer needs, preferences, and behaviors, financial institutions such as banks, mortgage lenders, credit card companies, and investment advisors are turning to the powerful data mining techniques in **STATISTICA Data Miner**. These techniques help companies in the financial sector to uncover hidden trends and explain the patterns that affect every aspect of their overall success.

Financial institutions have long collected detailed customer data - oftentimes in many disparate databases and in various formats. Only with the recent advances in database technology and data mining software have financial institutions acquired the necessary tools to manage their risks using all available information, and exploring a wide range of scenarios. Now, business strategies in financial institutions are developed more intelligently than ever before.





STATISTICA Data Miner enables financial institutions to:


- Detect patterns of fraud.
- Identify causes of risk; create sophisticated and automated models of risk.
- Segment and predict behavior of homogeneous (similar) groups of customers.
- Uncover hidden correlations between different indicators.
- Create models to price futures, options, and stocks.
- Optimize portfolio performance.


— Data Miner Tools and Techniques —


STATISTICA Data Miner will empower your organization to provide better services and enhance the profitability of all aspects of your customer relationships.

 Predict customer behavior with **STATISTICA Data Miner's General Classifier** and Regression tools to find rules for organizing customers into classes or groups. Find out who your most profitable, loyal customers are and who is more likely to default on loans or miss a payment. Apply state-of-the-art techniques to build and compare a wide variety of linear, non-linear, decision-tree based, or neural networks models.

 Recognize patterns, segments, and clusters with *STATISTICA Data Miner's Cluster Analysis* options and **Generalized EM (Expectation Maximization)** and **K-means Clustering** module. For example, clustering methods may help build a customer segmentation model from large data sets. Use the various methods for mapping customers and/or characteristics of customers and customer interactions, such as multidimensional scaling, factor analysis, correspondence analysis, etc., to detect the general rules that apply to your exchanges with your customers.

 *STATISTICA Data Miner's* powerful **General Neural Networks Explorer** offers tools including classification, hidden structure detection, and forecasting coupled with an Intelligent Wizard to make even the most complex problems and advanced analyses seem easier.

 Uncover the most important variables from among thousands of potential measures with **Data Miner's Feature Selection and Variable Filtering** module, or simplify the data variables and fields using the Principal Components Analysis or Partial Least Squares modules.

 *STATISTICA Data Miner* also features the most advanced forecasting methods on the market: Linear and Nonlinear Multiple Regression with link functions, Neural Networks, ARIMA, Exponentially Weighted Moving Average, Fourier Analysis, and many others. Learn from the data available to you, provide better services, and gain competitive advantages when you apply the absolute state-of-the-art in data mining techniques such as generalized linear and additive models, **MARSplines**, tree nets (boosted trees), etc.



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