



# Microsoft® SQL Server® 2012



## Predictive Analysis in Microsoft SQL Server 2012 Gain intuitive and comprehensive predictive insight

### Top Features

- Test multiple data-mining models simultaneously with statistical scores of error and accuracy and confirm their stability with cross-validation.
- Build multiple, incompatible mining models within a single structure; apply model analysis over filtered data; query against structure data to present complete information, all enabled by enhanced mining structures.
- Combine the best of both worlds by blending optimized near-term predictions (ARTXP) and stable long-term predictions (ARIMA) with Better Time Series Support.
- Discover the relationship between items that are frequently purchased together by using Shopping Basket Analysis and generate interactive forms for scoring new cases by using Predictive Calculator, both of which are part of Microsoft® SQL Server® 2012 Data Mining Add-ins for Microsoft Office 2010.

### Complete

Inform decisions with intuitive and comprehensive predictive insight available to all users.

#### **Rich and Innovative Algorithms**

Benefit from many rich and innovative data-mining algorithms to support common business problems promptly and accurately.

#### **Market Basket Analysis**

Discover which items tend to be bought together to create recommendations on-the-fly and to determine how product placement can directly contribute to your bottom line.

#### **Churn Analysis**

Anticipate customers who may be considering canceling their service and identify benefits that will keep them from leaving.

#### **Market Analysis**

Define market segments and seek profitable customers by

automatically grouping similar customers together.

#### **Forecasting**

Predict sales and inventory amounts and learn how they are interrelated to foresee bottlenecks and improve performance.

#### **Data Exploration**

Analyze profitability across customers or compare customers who prefer different brands of the same product to discover new opportunities.

#### **Unsupervised Learning**

Identify previously unknown relationships between various elements of your business to better inform your decisions.

#### **Website Analysis**

Understand how people use your website and group similar usage patterns to offer a better experience.

#### **Campaign Analysis**

Spend marketing dollars more effectively by targeting the

customers who are most likely to respond to a promotion.

### Information Quality

Identify and handle anomalies during data entry or data loading to improve the quality of information.

### Text Analysis

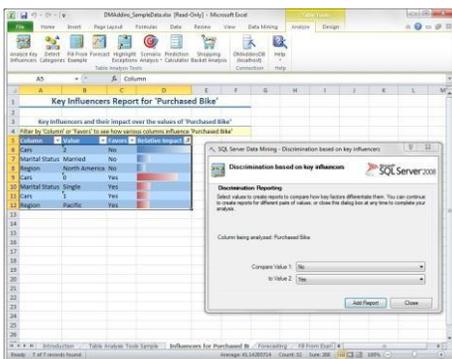
Analyze feedback to find common themes and trends that concern your customers or employees, informing decisions with unstructured input.

### Comprehensive Development Environment

Generate actionable insights to inform decisions promptly and accurately with Business Intelligence Development Studio. Build sophisticated models and interactive visualizations with the Data Mining Wizard and the Data Mining Designer.

### Pervasive Delivery Through Microsoft Office

Empower users to harness advanced data-mining technology with the SQL Server Data Mining Add-ins for Microsoft Office 2010, enabling seamless transition between discovery and exploration and hiding complexity behind intuitive tasks with the Table Analysis Tools for Microsoft Excel®.



Data mining inside Excel 2010

### Enterprise-Grade Capabilities

Rely on SQL Server 2012 Analysis Services to enhance your predictive solution with enterprise-class server advantages such as rapid development, high availability, superior performance and scalability, robust security features, and enhanced manageability through SQL Server Management Studio.

### Integrated

Integrate prediction into every step of the data life cycle to discover hidden insights.

### In-Flight Mining During Data Integration

Use predictive analysis with SQL Server 2012 Integration Services to flag anomalous data, classify business entities, predict missing values, and perform text mining in data flows, based on the prediction and insight of the data-mining algorithms.

### Insightful Analysis

Include data-mining results as dimensions in online analytical-procurement (OLAP) cubes to deliver a richer experience, slicing data by the hidden patterns within.

### Native Reporting Integration

Build reports with SQL Server 2012 Reporting Services by using data-mining queries as the data source. Query against the data-mining structure to present complete information beyond the limitations of the mining-model requirements, delivering prediction effectively.

### Predictive KPIs

Benefit from the integration between SQL Server 2012 Analysis Services and Microsoft Office PerformancePoint® Server 2007.

Combine predictive and retrospective KPIs to forecast future performance against targets and anticipate potential challenges.

### Extensible

Extend prediction and enhance your data-mining functionality to create intelligent applications.

### Predictive Programming

Build data-mining-aware applications with familiar tools and a rich development platform that includes XML for Analysis (XMLA), Data Mining Extensions (DMX), ADOMD.NET, Object Linking and Embedding Databases (OLEDB), and Analysis Management Objects (AMO).

### Custom Algorithms and Visualizations

Expand the SQL Server 2012 data-mining toolset through managed stored procedures, Predictive Model Markup Language (PMML), plug-in algorithms, and visualizations to solve uncommon needs.

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