SAS® Factory Miner

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New product available on 14 July
Why Factory Miner?

You might remember these slides from previous years.
New relevant concepts

- Model by exception
- Automated modeling
- Rapid data mining
- Massive modeling
- Predictive analytics factory
- Large-scale machine learning

Evolution of analytics

Data-driven enterprises must modernize their analytics infrastructures for additional competitive benefit. SAS supports them with advanced analytics techniques that exploit the power of in-memory processing for faster, more complete and more accurate insight:

- **Machine learning** is increasingly popular among data scientists. This technology offers automated model building using self-learning, iterative algorithms to enhance predictive power. Since implementing its first machine learning algorithm in the 1990s, SAS has added new, improved techniques yearly.

- **Deep learning** involves advanced neural networks with many hidden layers. It performs modeling in growing areas such as pattern, image and facial recognition. SAS delivers a comprehensive set of neural network techniques to support deep learning.

- **Text analytics** explores unstructured data and plays a core role in many big data initiatives. The more complex functions, such as applying natural language processing to extract insight, require the advanced text analytics algorithms that SAS continues to innovate.

- **Mass-modeling and management** quickly builds thousands of predictive models in an automated process and manages them in a real-time operational environment. This advanced analytics technology makes the most ambitious visions of 1-to-1 marketing a reality. SAS expects to provide this total in 2015.
Decisions at scale

- More predictive machine learning algorithms
- Model tournaments
- More granular segments
- Enable non-technical users
- More time for analytic innovation

- Integration
- Embedded analytics
- Move insights closer to the decision-maker
- Combine business rules and models
- Build once, deploy anywhere

- Use ALL relevant data
- Include more attributes
What is the probability that this customer is a detractor?

20 new models
Creating a **hierarchy** of models, choosing the “best” model at each level.
Boost model performance and data scientist productivity
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Short demo

What is the probability that this customer is a detractor?

20 new models

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Now you have lots of models. What next?

The ‘IT’ people

!!!???!!!

The ‘Analytics’ people

I just built 850 new models. When can you put them into production?
Automated models & business rules ... together

**Data**
- **What:** Data from Hadoop, DB
- **How:** Data Integration, Data Loader

**Discovery**
- **What:** Customer Data Mart, Segmented ABT
- **How:** Enterprise Miner, Factory Miner, Open Source, Business Rules

**Deployment**
- **What:** Models, Rules, Data
- **How:** Decision Manager, Scoring Accelerators
Key benefits

**SPEED**
Get answers fast through automated model development using customizable templates

**EFFICIENCY**
Boost productivity of your data scientists through automation and collaboration

**PRECISION**
Get accurate answers to your questions by applying modern machine learning and predictive analytics algorithms

**SCALABLE**
Scale environment with your growing needs
SAS Development Partner

KEY GOALS
- Identify customer with high likelihood to respond or to churn
- Segmented models across plans, channels and campaigns
- Automated machine learning, model selection and deployment

SOLUTIONS
- Development partner: SAS® Factory Miner
- Currently using SAS® Enterprise Miner™ and SAS® Rapid Predictive Modeler

KEY RESULTS AND BENEFITS (ongoing)
- Increased model lift vs control (significant lift in top demi-decile)
- Collaborative modeling methods and best practices
- Faster deployment (automated selection within minutes across all segments)
http://www.sas.com/da_dk/software/analytics/factory-miner.html