Zementis

Universal Deployment of KNIME Models

Big Data and Real-time Scoring

KNIME User Group Meeting, Zurich February 2014

www.zementis.com
About Zementis
Value of Predictive Analytics

Operational Predictive Analytics

Score Distribution
1st Lien Stand-Alone Loans

% of Delinquent Loans per Month

% of Delinquent Loans

Big Data ➔ Predictive Models ➔ Operational Insight Smarter Decisions
Zementis Value Proposition
Deploy in Minutes, not Months

Data Mining Tools
KNIME

Predictive Algorithms
- Decision Trees
- Neural Networks
- Support Vector Machines
- Linear and Logistic Regression
- Naive Bayes Classifiers
- General and Generalized Linear Models
- Cox Regression
- Rule Set Models
- Clustering
- Scorecards
- Association Rules
- Restricted Boltzamn Machine
- Multiple Models (Ensemble, Segmentation, Chaining, Composition)

Model Deployment
ADAPA Decisioning Engine
Real-time or Batch Scoring:
- On the Cloud
- On Site

Universal PMML Plug-in (UPPI)
Our solution for scoring:
- In-database
- Hadoop

Deploy in minutes ...
PMML
Predictive Model Markup Language

- PMML is an **XML-based language** used to define statistical and data mining models and to share these between compliant applications.

- Mature **standard** developed by the DMG (Data Mining Group) to avoid proprietary issues and incompatibilities and to deploy models.

- Supported by **all leading data mining tools**, commercial and open-source.

- Allows for the **clear separation of tasks**: Model development vs. model deployment.

- **Eliminates the need for custom code** and proprietary model deployment solutions.

- Uniform deployment platform ensures **scalability** and **reliability** of model execution.

PMML defines a standard not only to represent models, but also **data handling** and **data transformations** (pre- and post-processing).
Zementis & PMML
Vendor-neutral, Cross-platform Deployment
One Standard, One Process

Applications

PMML

Divisions

External Vendors

Service Providers
Case Study – Financial Industry
Fraud & Risk Scoring

Financial Institution

Zementis Scoring Engine

Scoring Bureau

Online Transactions
Decision Management

IT Service Provider

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Case Study – Various Industries
Sensor & Device Data Processing

Rotating Equipment

Energy

Zementis Scoring Engine

Biometrics

IP Network Security
Best Practices for Predictive Analytics and Data Mining

- Open Standards vs. Proprietary Code
- Select Best-of-Breed Tool Set
- Avoid Vendor Lock-in

- Deploy in Minutes vs Months
- Facilitate Clear Requirements & Communication
- Scale with Business Demand

- Big Data & Real Time
- In-Database & Hadoop
- Server, Cloud & SaaS

Vendor Neutral Standard

Time-to-Market Agility

Platform Independent Deployment
Thank You!

USA Headquarters
3570 Carmel Mountain Road
Suite 300
San Diego, CA, 92130
Phone: +1 619 330-0780

San Francisco Office
123 10th Street
San Francisco, CA 94103
Phone: +1 415 800 5461

Asia Office
19/F., Unit A
Ho Lee Commercial Building
38-44 D’Aguilar Street
Central, Hong Kong (S.A.R.)
Phone: +852 2868-0878