

## Universal PMML Plug-in for Greenplum

### *Zementis and Pivotal Deliver Standards-Based Execution of Predictive Analytics for In-database Scoring with the Pivotal Greenplum Database*

Zementis® and Pivotal® help companies easily deploy, execute and integrate scalable standards-based predictive analytics. This joint product combines the Zementis Universal PMML Plug-in (UPPI) for execution of predictive models with the power and scale of the Pivotal Greenplum Database. The result is an end-to-end solution that enhances Greenplum's large scale analytics processing capabilities with scoring of standards-based predictive models on a massively parallel architecture. By embedding predictive analytics directly in the database, this solution minimizes the movement of data and enables the efficient in-place processing of very large data sets.

### Universal PMML Plug-in: Features

The Universal PMML Plug-in fully supports the Predictive Model Markup Language (PMML), the de-facto standard for data mining applications. PMML, developed by the Data Mining Group, provides a standard way for an application to define statistical and data mining models so that they can be easily shared with any other application that supports PMML.

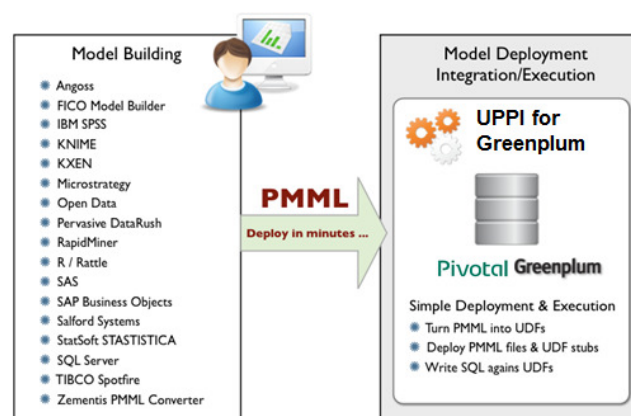
With PMML, the Plug-in delivers a wide range of predictive analytics for high performance scoring, including:

- Decision Trees for classification and regression
- Neural Network Models: Back-Propagation, Radial-Basis Function, and Neural-Gas
- Support Vector Machines for regression, binary and multi-class classification
- Linear and Logistic Regression (binary and multinomial)
- Naïve Bayes Classifiers
- General and Generalized Linear Models
- Cox Regression Models
- Rule Set Models (flat decision trees)
- Clustering Models: Distribution-Based, Center-Based, and 2-Step Clustering
- Scorecards (including reason codes)
- Association Rules

- Multiple Models: Model ensemble, segmentation, chaining and composition.

It also implements the definition of a data dictionary, missing and invalid values handling, and data pre- and post-processing.

The Universal PMML Plug-in shortens time to market for predictive analytics and empowers users through instant deployment and execution of predictive models.



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UPPI for Greenplum enables execution of standards-based predictive analytics directly within the Pivotal Greenplum Database. It seamlessly embeds the Universal PMML Plug-in into Greenplum's shared-nothing, massively parallel processing architecture. In this architecture, data is automatically portioned across multiple "segment" servers, and each segment owns and manages a distinct portion of the overall data.

UPPI's own shared-nothing design philosophy and replication flexibility fits like a glove into multi-server environments. With the Greenplum database, each individual segment server (with a dedicated, independent, high-bandwidth channel connection to local disks) houses a separate UPPI instance that can take full advantage of local resources. The net result is the ability to leverage the power of standards-based predictive analytics on a massive scale, right where the data resides.

Please [contact us](#) today to find out more!