Software AG Zementis Predictive Analytics 10.11.0.1

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Release Notes:

    * A Zementis Product License Key is required in order to use
Zementis
      Server. Please contact Software AG directly to obtain your
Product
      License Key.
    * If you have an existing Zementis Server installation, please
take a backup
      of artifacts uploaded in Zementis Server (Models & Resources).
Sources for
      these artifacts can be downloaded from Zementis UI.

Alternatively, you can use the migration script available under migration
        folder of Zementis 10.11.0.1 distribution package.
    * If Zementis Server is deployed as a Java library:
        - Sources for PMML artifacts can be downloaded by invoking
        ModelsServiceProvider.exportSource(modelName) and
        LibraryManager.exportResourceFile(name) respectively.
        - Sources for ONNX artifacts can be downloaded by invoking
        OnnxModelService.exportSource(modelId) and
        OnnxResourceService.exportResourceFile(resourceId) respectively.
    * Upgrading to Zementis 10.11.0.1 will require a clean repository
      store.

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Feature Log:

    * Brand new UI built with Angular 11.
    * Support for ONNX model, Resource, Pipeline management in REST
API and UI.
    * Zementis REST API documented with OpenAPI 3.0 specification.
    * Live documentation of Zementis REST API available in Swagger UI.
    * Support for ONNX versions 1.7 down to 1.2.
    * Support for ONNX OpSet version 12 and ONNX ML OpSet version 2.
    * Discontinued support for Deep Neural Networks in PMML.

Since Version 10.7.0:

    * Support for ONNX models, ONNX resources, and ONNX pipelines via
Java API.
    * Support for PMML 4.4.1.
    * Support for multi-variate State Space models.
    * Support for Confidence Intervals for State Space models.
    * Support for multi-valued output for multi-step forecasts and
confidence
      intervals.
    * Improved the correction process on known syntactic and semantic
problems
      found in the PMML.
    * Support for MaximumLikelihoodStats with KalmanState
representation in
      ARIMA models.
    * Support for Confidence Intervals for non-seasonal ARIMA models.

Since Version 10.5.0:

    * Support for Object Detection using RetinaNet.
    * Support for Seasonal ARIMA Time Series Models.
    * Support for Python script execution in PMML.

∗ Compliance with PMML 4.4 release features:
          – support for Lag@aggregation=stddev
          – support for Constant@missing
          – support for Anomaly Detection release schema

Since Version 10.4:

        ∗ New UI based on Angular framework.
        ∗ Zementis Server available as a Docker image.
        ∗ Enhanced support for CNNs with Pooling Layer optimizations.
        ∗ Support for Lag Expressions.
        ∗ Updated REST API to support authentication tokens and license
management.
        ∗ Compliance with upcoming PMML 4.4 release features:
          – Support for multiple model methods "weightedSum" and
"weightedMedian"
          – Support for new MiningField@invalidValueReplacement attribute
            – Support for new Lag@aggregate attribute
          – Support for new Built-in Functions: isValid, isNotValid,
modulo(%), sin,
            asin, sinh, cos, acos, cosh, tan, atan, tanh, rint, hypot,
ln1p, expm1
        ∗ Integration with Software AG Update Manager for fix delivery.

Since Version 10.3:

        ∗ Visualize Model KPIs including memory metrics and prediction
metrics.
        ∗ Support for Anomaly Detection models based on isolation forest
and
          one-class support vector machines.
        ∗ Support life-cycle operations and configuration management via
SAG
          Command Central.
        ∗ Adopted Level 2 of DBP common design language.

Since Version 10.2:

        ∗ Support for PMML representation of MobileNets, an efficient
Convolutional
          Neural Networks architecture for mobile vision applications.
        ∗ Updated the REST API to OpenAPI Specification 2.0 and REST UI to
Swagger
          UI 3.9.0.
        ∗ Upgraded JDK compatibility to JDK 8.

Since Version 10.1:

        ∗ Optimized processing of large tree-ensemble models and deep
learning

models.
    ∗ New design for Zementis Web Console.
    ∗ Portable Java client for REST services that allows full duplex
streaming
        for batch apply operation.
    ∗ Improved message reporting in PMML when performing syntactic and
semantic
        checks.

Since Version 5.0:

    ∗ Compatibility and automatic model conversion to PMML 4.3.
    ∗ Support for deep learning models.
    ∗ Support for k−NN algorithm.
    ∗ New design for Zementis Web Console.
    ∗ Download/upload serialized model:
        − Protect and deliver your proprietary models with Zementis
without
        revealing model internals, i.e., without exposing the PMML
model to a
        3rd party
    ∗ Model activation/de−activation at runtime:
        − De−activation evicts model from JVM heap, allowing Zementis
Server
        to manage more models than available heap
    ∗ Support for binary (octet−stream) data type.
    ∗ Asynchronous processing for data residing on Amazon AWS S3
bucket via
        REST/Web Service API.
    ∗ Improved support for STATISTICA models.

Since Version 4.2.5:

    ∗ Added support for managing custom resources via Web Service and
RESTful
        API.
    ∗ Simplified Java API for easy integration with existing Java
applications.
    ∗ Fast model upload option for PMML files that do not require
comprehensive
        syntactic and semantic corrections.
    ∗ Added concurrency and batch−size parameters to Zementis SOAP Web
Service
        and Zementis RESTful API for batch scoring.
    ∗ Zementis Server certified for deployment on Apache Tomcat 7.x.
and 8.x.
    ∗ Compatibility and automatic model conversion to PMML 4.2.1.
    ∗ Optimized data pre− and post−processing including input
validation for
        handling invalid, missing and outlier values.

Since Version 4.0:

    * Compatibility and automatic model conversion to PMML 4.2.
Support for all
      the new features introduced in PMML 4.2, including:
      – TextIndex element for text mining
      – Built-in functions matches, replace and concat
      – ComplexPartialScore element for Scorecards
      – TargetValueStats element for Naive Bayes classifiers
      – Usage type change from "predicted" to "target"
      – Simplified Output element features and support for segment id
for
        multiple models
    * Automatic placement of Output element in a PMML file if missing
and
      creation of an output field to represent the predicted value.
    * Deprecated Zementis extensions to PMML 4.1:
      – Built-in functions zementis:matches, zementis:replace
        and zementis:concat
      – Scorecard extension "PARTIAL_SCORE_FIELD"
    * Optimized Random Forest model processing to speed up loading
time and
      reduce memory footprint.
    * Added RESTful API on top of Zementis scoring engine. This
feature is
      available when Zementis is deployed as a server.
    * Added 'explainApply' operation to Zementis SOAP Web Service.

Since Version 3.8:

    * PMML conversion/correction is by-passed if an already Zementis-
converted
      PMML file is uploaded.
    * Users can now upload compressed PMML file (zip/gzip). The PMML
file needs
      to be the only entry in the zip/gzip file.
    * In a multiple-model, users can now access specific segment
outputs from
      the top model.

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Questions/Support:

If you need technical support, please visit our support site at :

http://softwareag.com/support
http://support.zementis.com

Please contact Software AG Zementis for additional assistance by visiting :

http://empower.softwareag.com/ContactSupport/