

The zonos™ module TheFuture is a powerful data analysis software that provides accurate and reliable short- and long-term forecasts. Applications include load prediction, forecasting of renewable energy generation, grid stability assessment, anticipation of corrosion processes and investigation of dynamic pricing scenarios.

Predictions are made using historical time series data and state-of-the-art machine learning algorithms based on the theory of dynamic systems.

Details

The zonos™ module TheFuture consists of four components. zonos™ 24insight and zonos™ Infinity are the basic product components.

zonos™ 24insight makes short-term predictions with high precision and is ideally suited for day-ahead forecast of both renewable energy generation and electric load (see our [live demo](#) for details). zonos™ Infinity allows robust long-term forecasts and trend analysis.

zonos™ GridProtect and zonos™ PriceAndMore are highend products using proprietary data analysis technologies. zonos™ GridProtect uses generic algorithms to anticipate corrosion processes and to evaluate network stability. zonos™ PriceAndMore offers a variety of uses, from analysing dynamic pricing to scenario exploration of IoT applications.



Features

- Real-time point forecasts including prediction intervals
- Multi-utility support (power, gas, water, heat, etc.)
- Can be integrated with centralized and uniform event and alarm management
- Forecast based on current and past time series data
- Short-term precision forecast with **zonos™ 24insight**
- Robust long-term forecast and trend analysis with **zonos™ Infinity**
- Evaluation of grid stability with **zonos™ GridProtect**
- Dynamic pricing and scenario exploration with **zonos™ PriceAndMore**

zonos™ module TheFuture is fully automated and user friendly. For all four components, past time series data are used to generate the forecast model. Real-time forecasts are made by automatically feeding the forecast model with current data.

Forecast data are provided digitally for further processing. The forecast and a summary of the performance of past forecasts are shown in dashboards that are constantly updated and storable.



Application Areas

- Forecast and management of electric demand
- Forecasting of renewable energy generation
- Prediction of water and gas consumption
- Optimization of heating systems
- Management of agricultural processes
- Improvement of power grid stability
- Anticipation of corrosion status of cables
- Consumer behaviour analysis and pattern recognition
- Input for energy trading contracts
- Support of dynamic pricing by forecast of market dynamic
- Fraud detection
- Scenario exploration under climate change

Advantages

- Seamless integration via **zonosTM API**
- Full access to all data in **zonosTM IoT Platform**
- No additional data cleansing necessary
- Usage of module output for further data processing possible
- Merging analytics and real data via **zonosTM module ReportPlus**
- Customizable

