

ASAP - Applied Time Series Analysis and Prediction

MARKET NEED

Time Series are used in many business areas, such as finance, health, environment and energy. Daily sales, weekly orders, monthly overhead or yearly income are all examples of Time Series information. Formally, a Time Series (TS) is a sequence of values for a variable with associated time stamps. The series represents the variation of this variable over a period of time. Analysing time series information is complex. State-of-the-art tools require expert knowledge to produce reliable, efficient and useful reports. The ASAP demonstrator removes this obstacle by providing an easy to use, intuitive and interactive environment which allows visualisation, analysis and forecasting of single value and transactional Time Series.

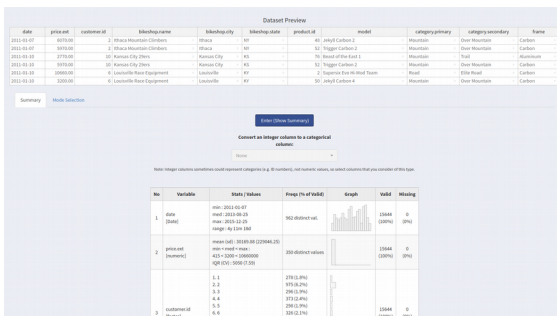


Fig1: Data preview and statistics.

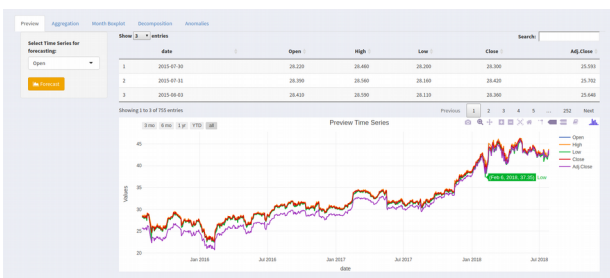


Fig2: Interactive charts

TECHNOLOGY SOLUTION

ASAP is a Web platform which offers a palette of functionality for analysis of Time Series in a user-friendly manner.

- Anomaly detection to determine exceptions
- Forecasting of future values: Selecting the best from a series of state-of-the-art predictive models.
- Interactive visualisations.
- Data format: CSV files.
- Data aggregation based on time and features (filtering).
- Time Series decomposition (Seasonality, Trend and Remainder).



Fig3: Forecasting

APPLICABILITY

ASAP can be used with datasets consisting of categorical and numerical values in classical or transactional Time Series. When a Time Series is selected (directly or by filtering), the user will be able to analyse it and/or forecast future values. Daily sales, hourly temperatures, financial data by minute, hour or day, etc. are just some examples of variables and temporal formats supported by ASAP.