# Forecasting

12.8

Use forecasting in IBM® Cognos Analytics to discover and model trend, seasonality, and time dependence in data.

You can forecast in IBM Cognos Analytics by using automated tools that model timedependent data. Automated model selection and tuning makes forecasting easy to use, even if you are not familiar with time series modeling.

Forecasts and their confidence bounds are displayed in visualizations as a continuation of historic data. You can also view the statistical details for generated models if you want to see the technical background.

Specifying time series in forecasts often requires data manipulation. Cognos Analytics supports a wide range of time series without the need for manipulation, ranging from standard date and time types, to nested periodic and cyclical time fields. When data is recognized as a time series, data preparation is automated. Appropriate trend and seasonal periods are detected, and models are selected from a set of nine different model types.

You can forecast in line, bar, and column visualizations. Forecasting allows analysis of hundreds of time series per visualization. Forecasts and confidence bounds are computed for each time series, and displayed in the visualization as extensions of the current data. You can inspect each time series separately, and tailor the forecast and results to your own data and requirements.

If you are familiar with forecasting models, you can view the selected model type, estimated model parameters, standard accuracy measures, and processing summary information.

#### Forecasting features

Forecasting provides time series data modeling and forecasts based on data in visualizations.

#### Forecasting options

You can modify your forecasts by setting a number of period and confidence level options in the **Forecast** dialog box.

# Visualization types that support forecasting

Forecasting is supported in line, bar, and column visualizations.

## Forecasting data

Data that is suitable for forecasting has measure values that correspond to regularly spaced time points. You specify time and measures in visualizations by dragging time fields and measure fields into visualization slots. Optionally, you can also specify group fields that split the measure values by categories.

### Forecasting statistical details

A forecasting run generates forecasts and forecasting statistical details. Forecasting statistical details are located in the data tray at the bottom of each visualization. There is a single row of statistical details for each time series in the visualization. Forecasting details are generated as long as the time points are evenly spaced.

### Forecasting models

Exponential smoothing models are a popular class of time series models.

## **Parent topic:**

→ Dashboards