

VAR Model

Model the time series using **vector autoregression (VAR) model**.

Inputs

- Time series: Time series as output by **As Timeseries** widget.

Outputs

- Time series model: The VAR model fitted to input time series.
- Forecast: The forecast time series.
- Fitted values: The values that the model was actually fitted to, equals to *original values - residuals*.
- Residuals: The errors the model made at each step.

Using this widget, you can model the time series using VAR model.

The screenshot shows the 'VAR Model' widget in Orange Data Mining. The interface is as follows:

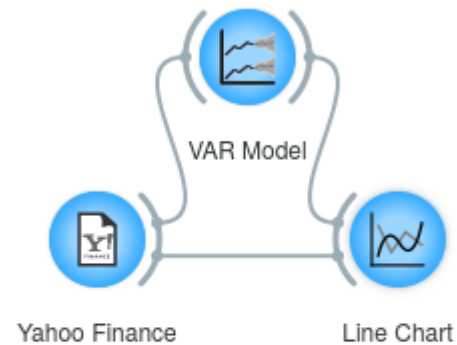
- Name:** A text box containing 'VAR(2,nc)' with a circled '1' next to it.
- Parameters:** A section containing a 'Maximum auto-regression order:' spinner set to '2' with a circled '2' next to it.
- Information criterion:** A section with the label 'Information criterion' and a circled '3' next to it. Below it is 'Optimize AR order by:' with radio buttons for 'None' (selected), 'Akaike's information criterion (AIC)', 'Bayesian information criterion (BIC)', 'Hannan-Quinn', 'Final prediction error (FPE)', and 'Average of the above'.
- Trend:** A section with the label 'Trend' and a circled '4' next to it. Below it is 'Add trend vector(s):' with radio buttons for 'None' (selected), 'Constant', 'Constant and linear', and 'Constant, linear and quadratic'.
- Forecast:** A section with the label 'Forecast' and a circled '5' next to it. It contains 'Forecast steps ahead:' set to '10' and 'Confidence intervals:' set to '95'.
- Bottom section:** A checkbox labeled 'Apply Automatically' (checked) and a 'Report' button.

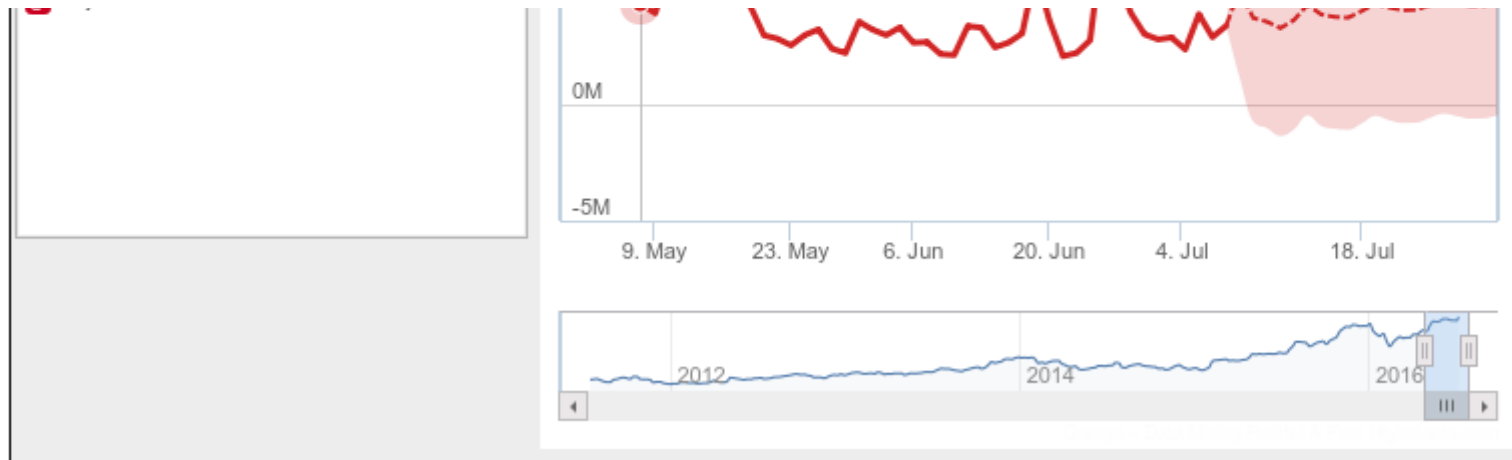
1. Model's name. By default, the name is derived from the model and its parameters.
2. Desired model order (number of parameters).
3. If other than *None*, optimize the number of model parameters (up to the value selected in (2)) with the selected information criterion (one of: AIC, BIC, HQIC, FPE, or a mix thereof).
4. Choose this option to add additional "trend" columns to the data:
 - *Constant*: a single column of ones is added
 - *Constant and linear*: a column of ones and a column of linearly increasing numbers are added

- *Constant, linear and quadratic*: an additional column of quadratics is added

5. Number of forecast steps the model should output, along with the desired confidence intervals values at each step.

Example





See also

[ARIMA Model](#), [Model Evaluation](#)