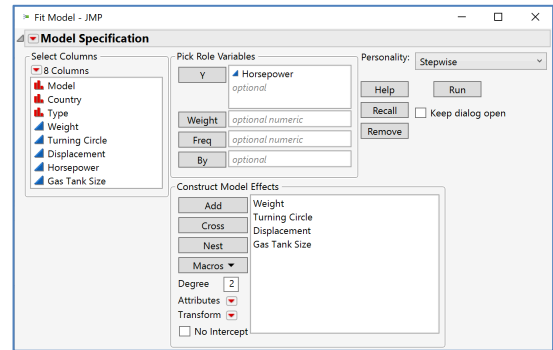# Stepwise Regression

Use to perform automated variable selection in multiple linear or logistic regression models. The method is particular useful when there is a large number of candidate explanatory variables.

## Stepwise Regression

1. From an open table, select **Analyze > Fit Model.**
2. Select a response variable from **Select Columns** and click **Y**.
3. Select predictor variables and click **Add**.
4. If desired, select a validation column **(JMP® Pro only)**.
5. Select **Stepwise** from the **Personality** drop-down menu.
6. In the resulting **Stepwise Fit** window (shown below):

   - Select a **Stopping Rule**.
   - Select the step **Direction** (forward, backward or mixed).
   - To run the regression automatically, click **Go**. To proceed manually, click **Step**.

Car Physical Data.jmp (Help > Sample Data Library)



Click the **red triangle** for cross-validation, all possible models (all subsets regression), model averaging and other options.

Choose **Stopping Rule** and **Direction** of adding/removing terms.

Results for current model.

Check/uncheck **Entered** terms to change the model. **Locked** terms are used (or **not** used) in later steps.

Each time the model is changed, a new line is added to the **Step History** panel.



Use **arrows** to stew forward/backward one term at a time.

Select **Go** to run the full stepwise routine according to the chosen **Direction** and **Stopping Rule**.

P-**values** are displayed under **Prob>F**.

- For **Forward** regression, remove all terms, then click **Step** or **Go**.
- For **Backward** regression, enter all terms, then click **Step** or **Go**.
- The **Mixed** direction is only available with the p-value stopping rule.
- To run the model shown in the Current Estimates table, click **Run Model.** JMP generates the Fit Model report.
- See the **Multiple Linear Regression** or **Multiple Logistic Regression** one-page guides for more details.

Visit **Fitting Linear Models > Stepwise Regression Models** in **JMP Help** to learn more.