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# Tips, Tricks and Time-Savers:

# Features You May Not Yet Have Discovered

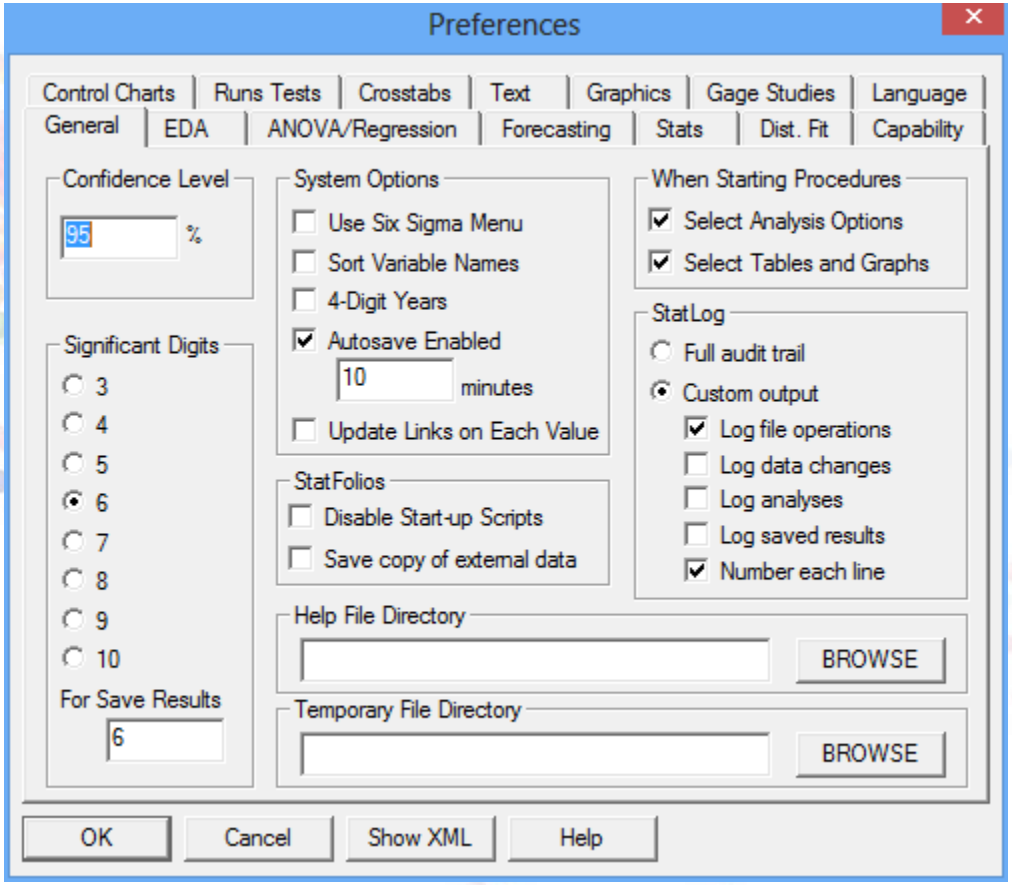
Presented by Dr. Neil W. Polhemus

# Outline

- Setting and saving preferences.
- Recoding data.
- Making predictions from fitted models.
- Copying output to other applications.
- Overlaying graphs in the StatGallery.
- Using a “BY” variable to replicate an analysis.
- Using value labels.

# #1: System Preferences

- Accessed from the *Edit* menu.

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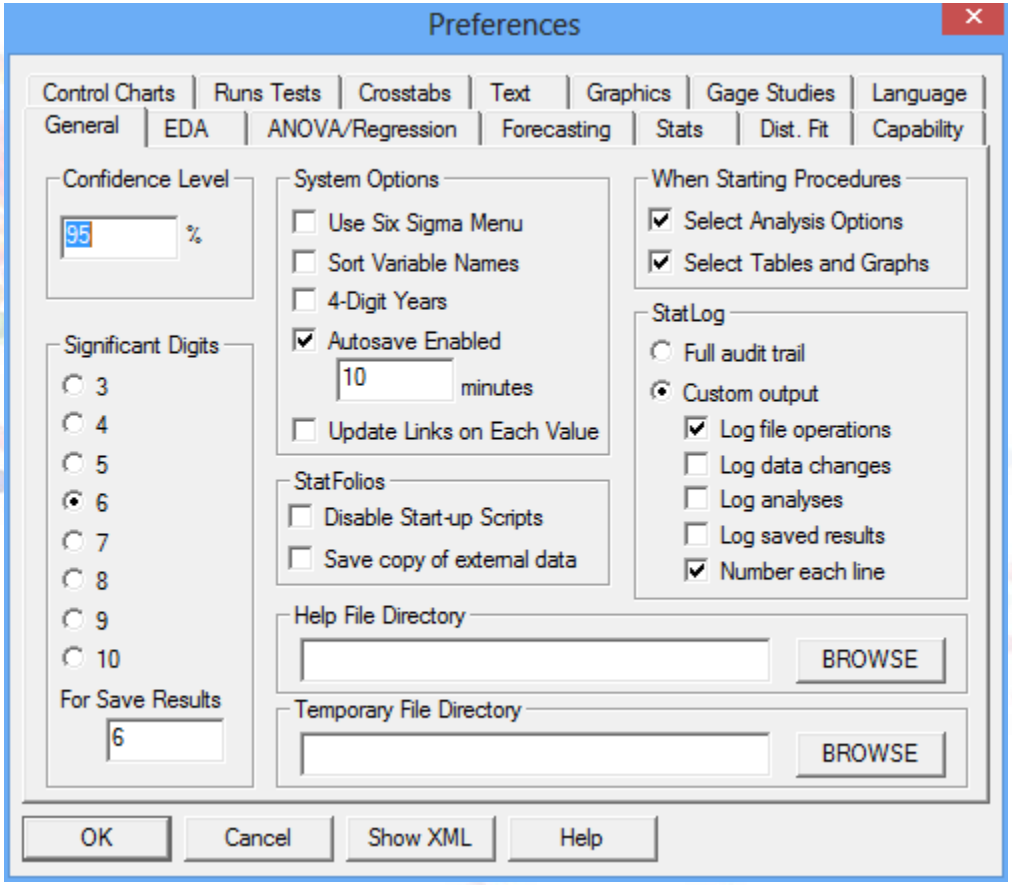
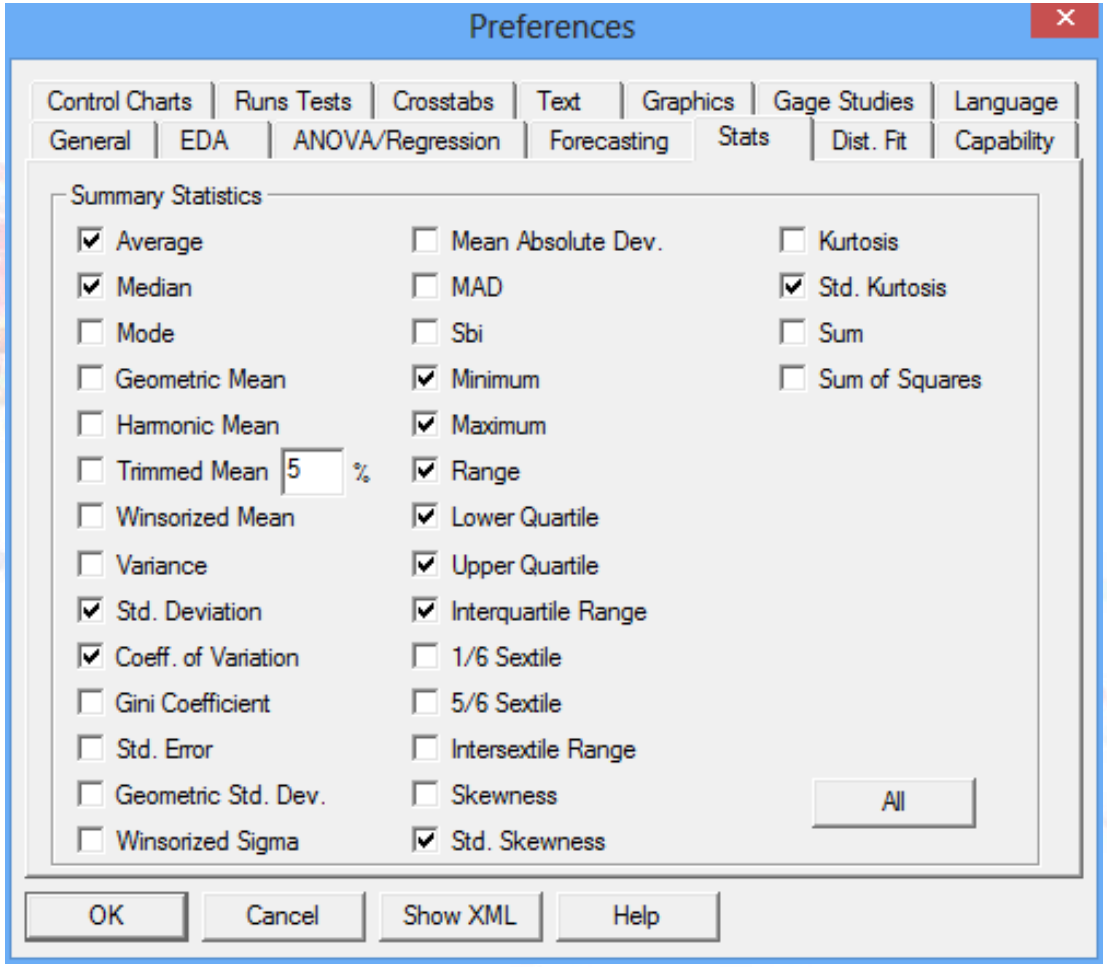
# 1. System Preferences

- Accessed from the *Edit* menu.



# Summary Statistics

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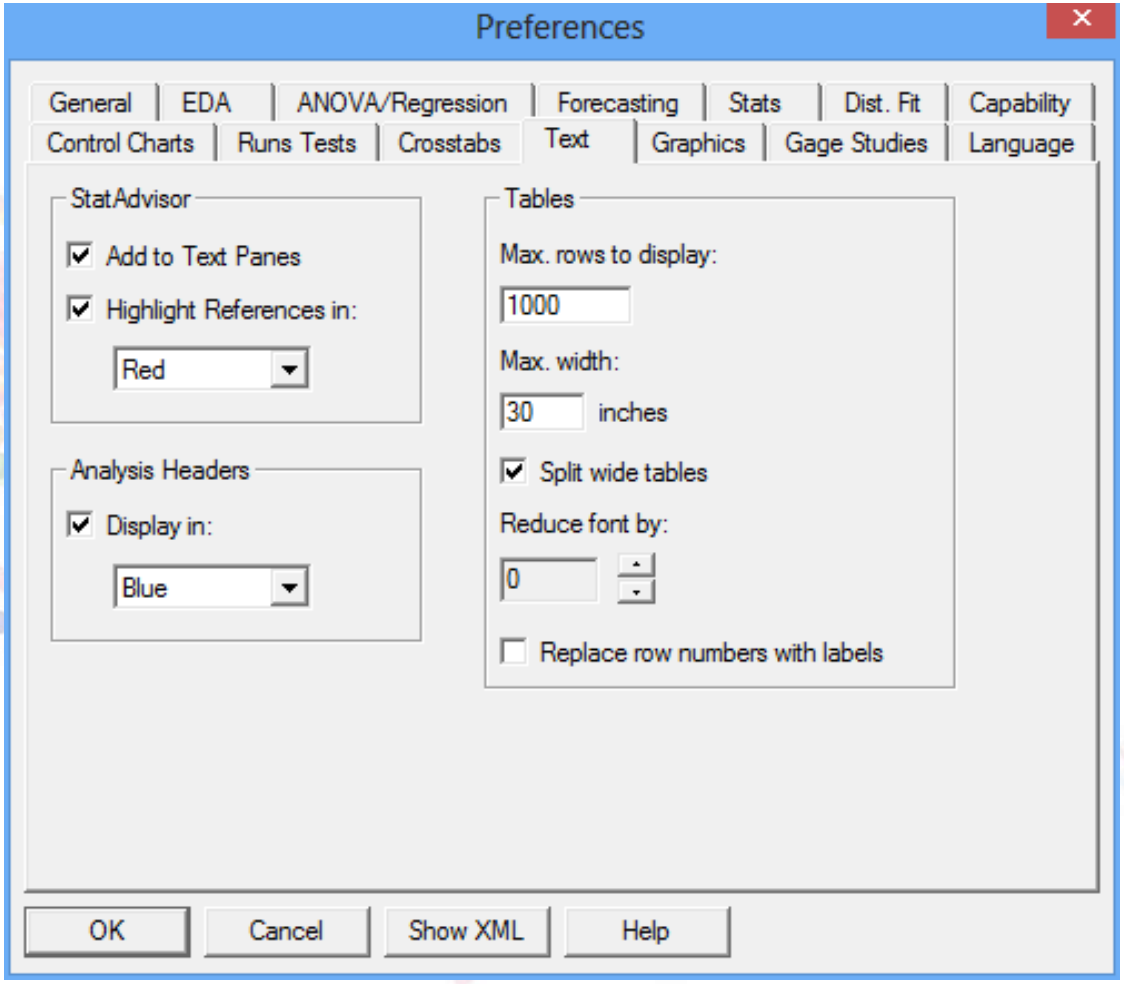
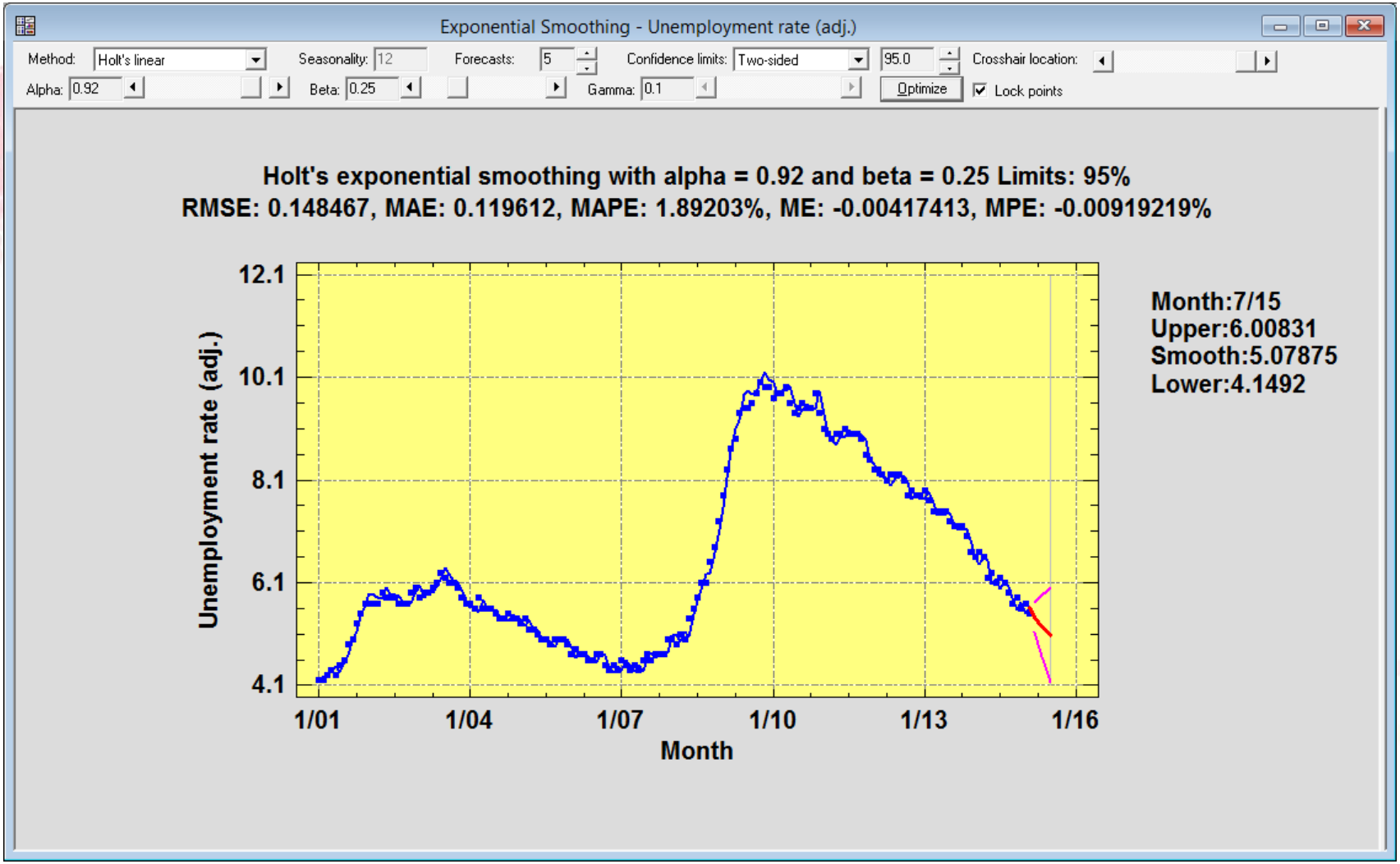
# Text



# Graphics Preferences

- Statgraphics maintains a set of default attributes that are applied to newly created graphs.
- You may use the *Profile* tab on the Graphics Options dialog box to save and apply other sets of attributes.
- You can also import and export these settings to move them from one computer to another.

# Example

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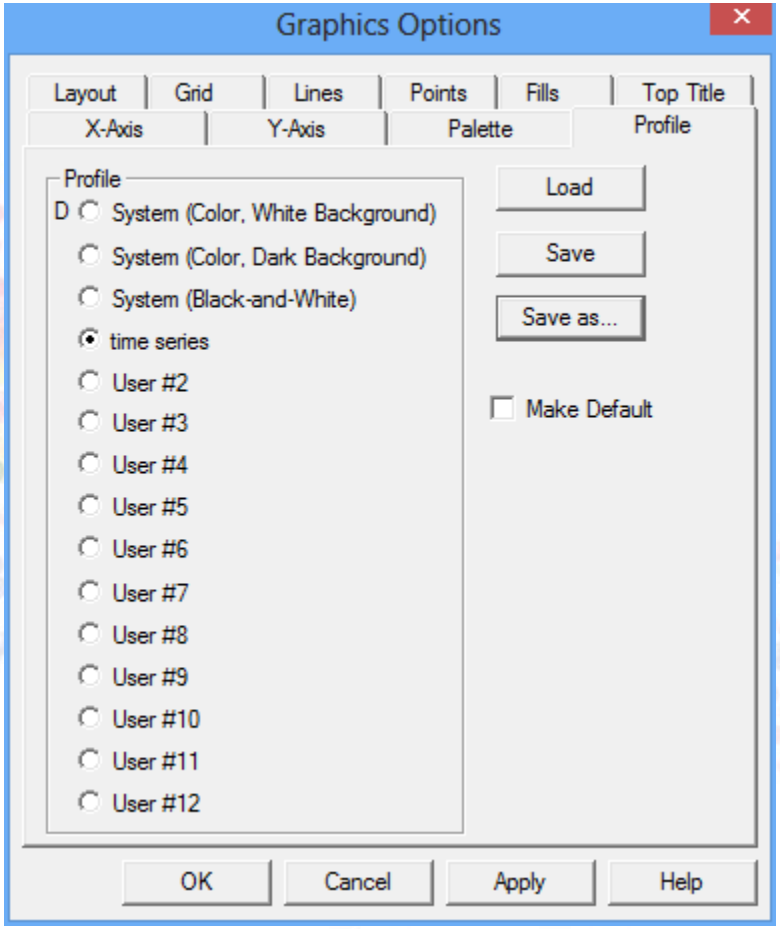
# Graphics Profiles

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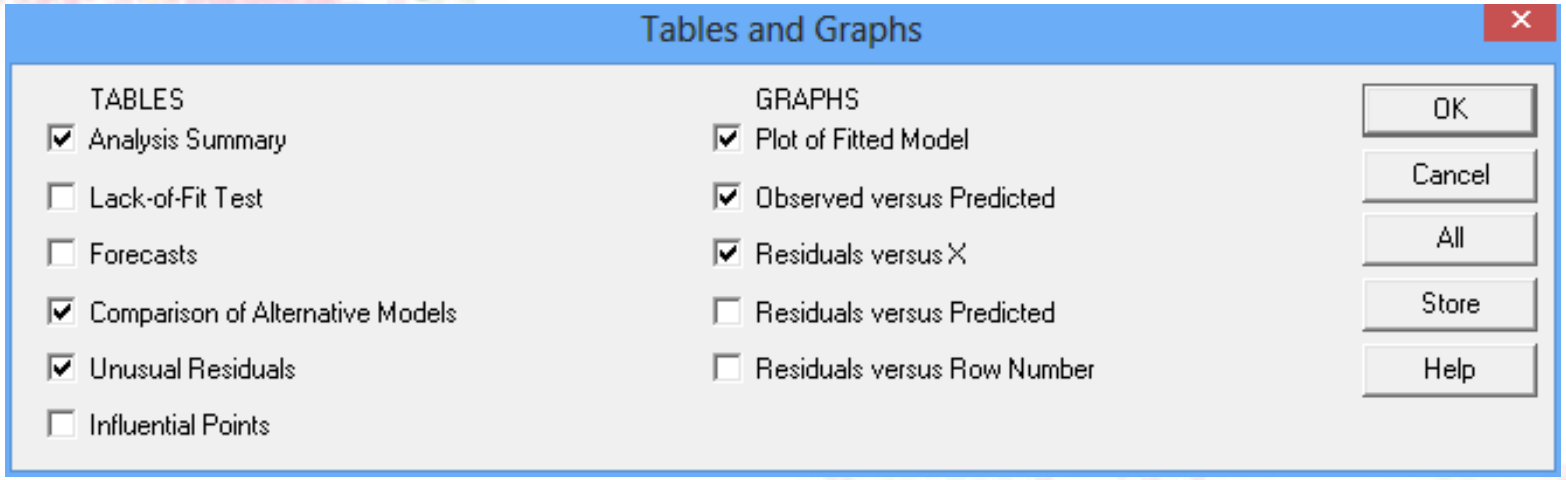
# Saving Desired Tables and Graphs

- You may save the default tables and graphs for any procedure. (Use the *Store* button).

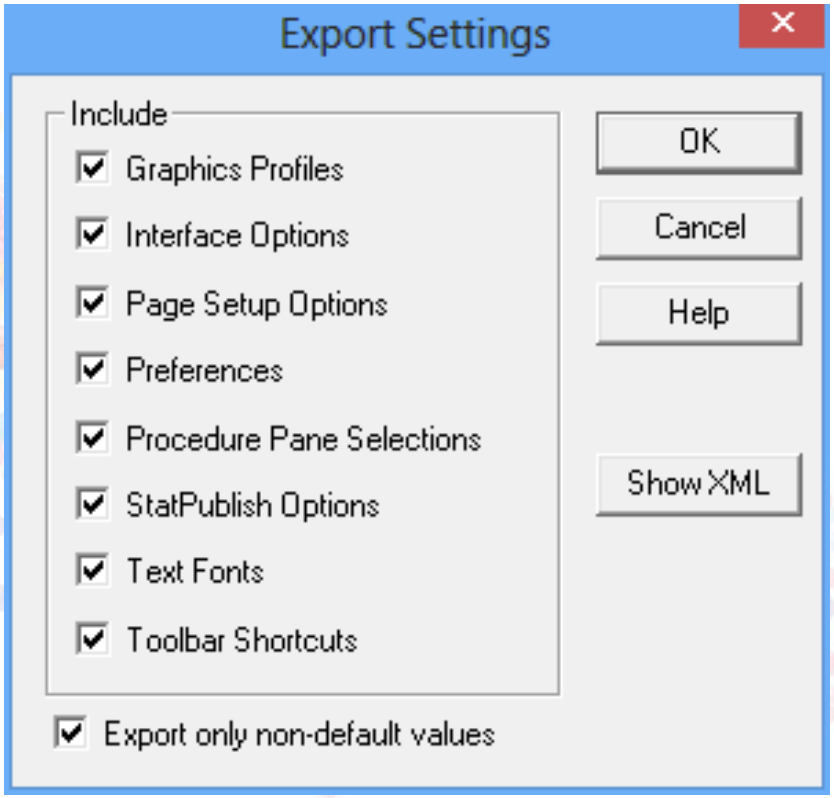


# Import/Export Settings

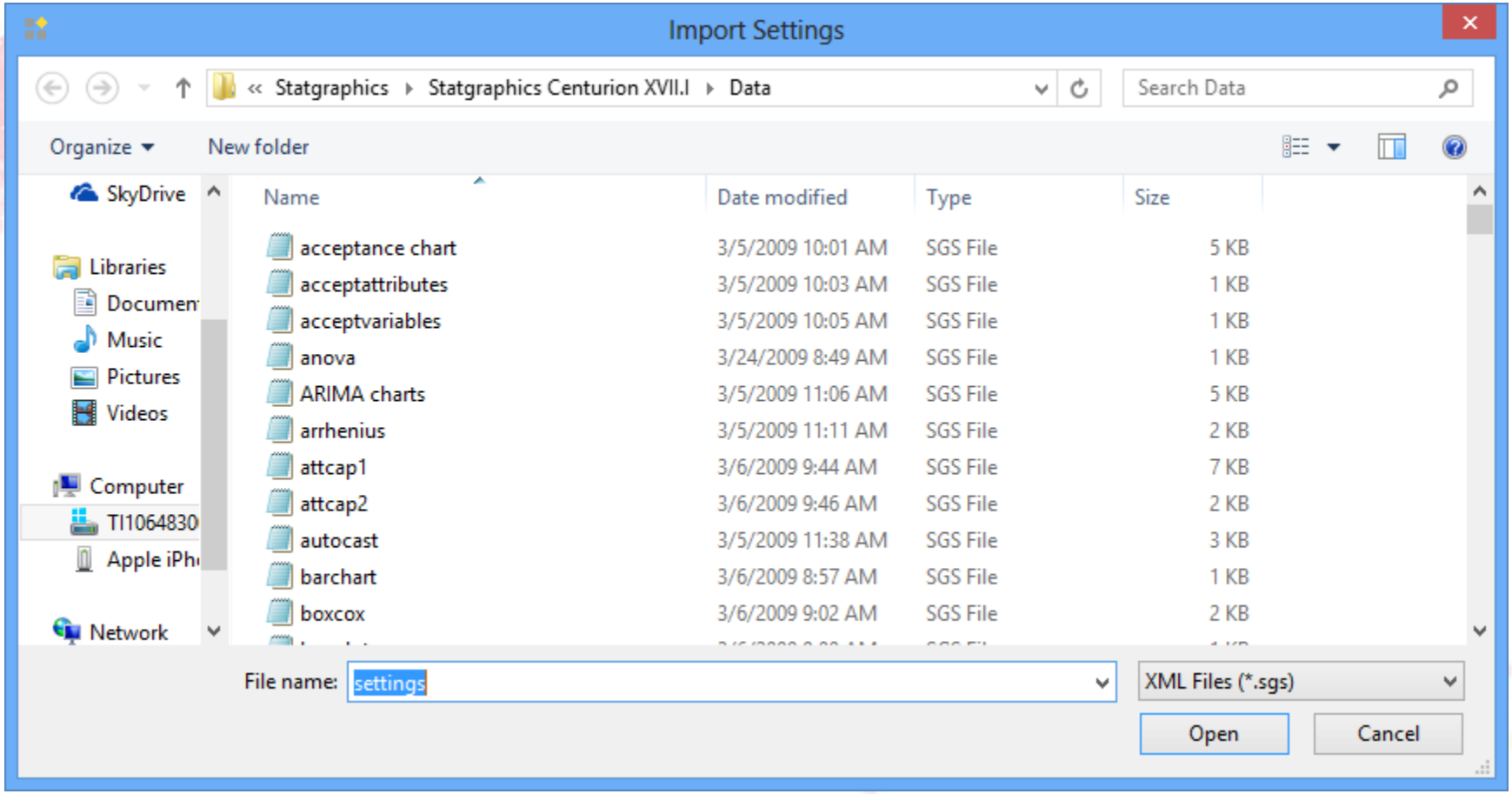
- Graphics profiles and other system settings may be imported and exported as a group.

- This lets you:
  - Move settings from one computer to another.
  - Establish an organizational standard and apply it to everyone's computer.

# Export Settings



# Import Settings

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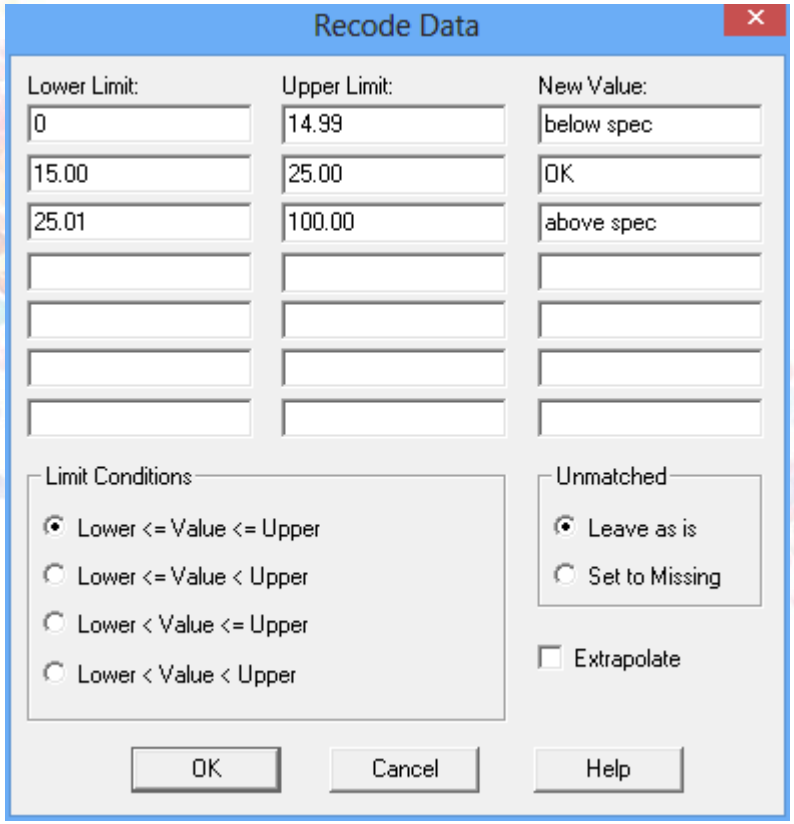
# #2. Recoding Data

- The Statgraphics DataBook provides the ability to recode data in a column.

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# #3. Predictions from Fitted Models

- Many procedures in Statgraphics create statistical models for data.
- Those procedures fit the models to a set of observations which is sometimes called a “training set”.
- They can then make predictions for other observations that were not used to fit the model.
- This is done by adding rows in which values of the predictor variables are entered but the value of the dependent variable is left blank.

# Example – Designed Experiment

C:\DocData17\chemical reaction2.sgx

| | BLOCK | feed rate | catalyst | agitation | temperature | concentration | reacted |
|---|---|---|---|---|---|---|---|
| | | liters/min | % | rpm | degrees | % | % |
| 1 | 1 | 12.5 | 1.5 | 110.0 | 160.0 | 4.5 | 65 |
| 2 | 1 | 10.0 | 1.0 | 100.0 | 140.0 | 6.0 | 56 |
| 3 | 1 | 15.0 | 1.0 | 100.0 | 140.0 | 3.0 | 53 |
| 4 | 1 | 10.0 | 2.0 | 100.0 | 140.0 | 3.0 | 63 |
| 5 | 1 | 15.0 | 2.0 | 100.0 | 140.0 | 6.0 | 65 |
| 6 | 1 | 10.0 | 1.0 | 120.0 | 140.0 | 3.0 | 53 |
| 7 | 1 | 15.0 | 1.0 | 120.0 | 140.0 | 6.0 | 55 |
| 8 | 1 | 10.0 | 2.0 | 120.0 | 140.0 | 6.0 | 67 |
| 9 | 1 | 15.0 | 2.0 | 120.0 | 140.0 | 3.0 | 61 |
| 10 | 1 | 12.5 | 1.5 | 110.0 | 160.0 | 4.5 | 67 |
| 11 | 1 | 10.0 | 1.0 | 100.0 | 180.0 | 3.0 | 69 |
| 12 | 1 | 15.0 | 1.0 | 100.0 | 180.0 | 6.0 | 45 |
| 13 | 1 | 10.0 | 2.0 | 100.0 | 180.0 | 6.0 | 78 |
| 14 | 1 | 15.0 | 2.0 | 100.0 | 180.0 | 3.0 | 93 |
| 15 | 1 | 10.0 | 1.0 | 120.0 | 180.0 | 6.0 | 49 |
| 16 | 1 | 15.0 | 1.0 | 120.0 | 180.0 | 3.0 | 60 |
| 17 | 1 | 10.0 | 2.0 | 120.0 | 180.0 | 3.0 | 95 |
| 18 | 1 | 15.0 | 2.0 | 120.0 | 180.0 | 6.0 | 82 |
| 19 | 1 | 12.5 | 1.5 | 110.0 | 160.0 | 4.5 | 63 |
| 20 | 1 | 14 | 1.8 | 115 | 155 | 5.5 | |
| 21 | | | | | | | |
| 22 | | | | | | | |
| 23 | | | | | | | |
| 24 | | | | | | | |

chemical reaction2 | B | C

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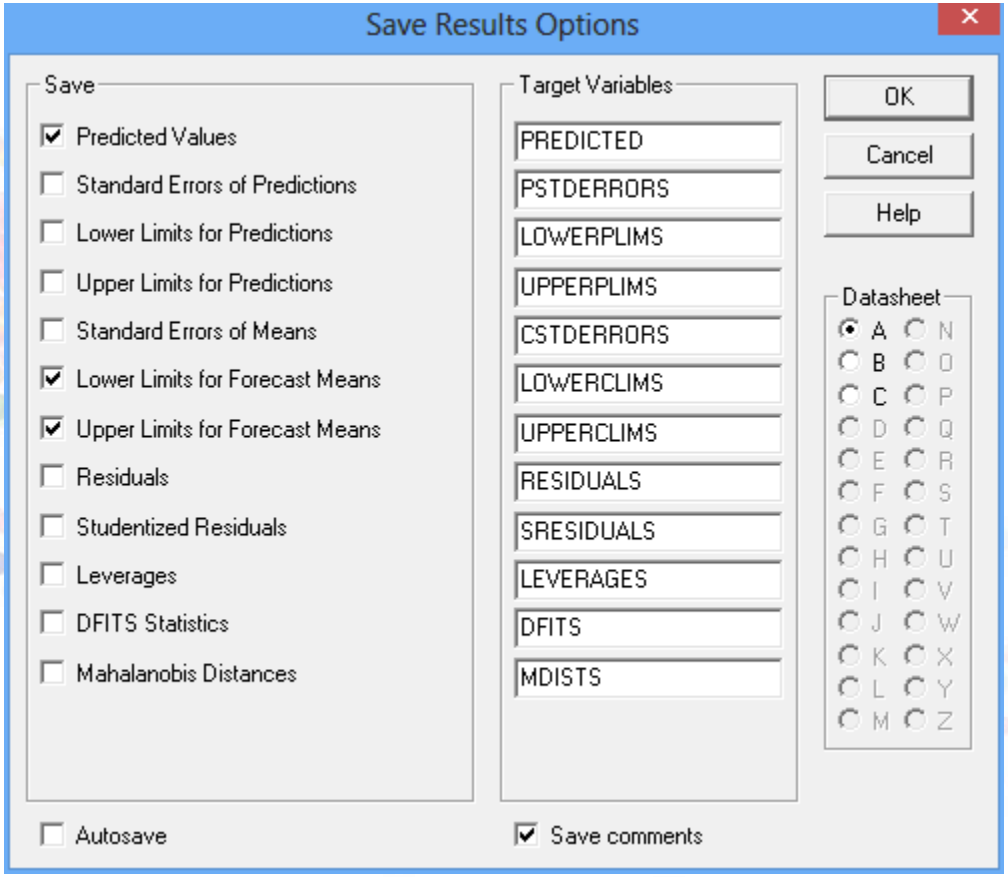
# Save Results

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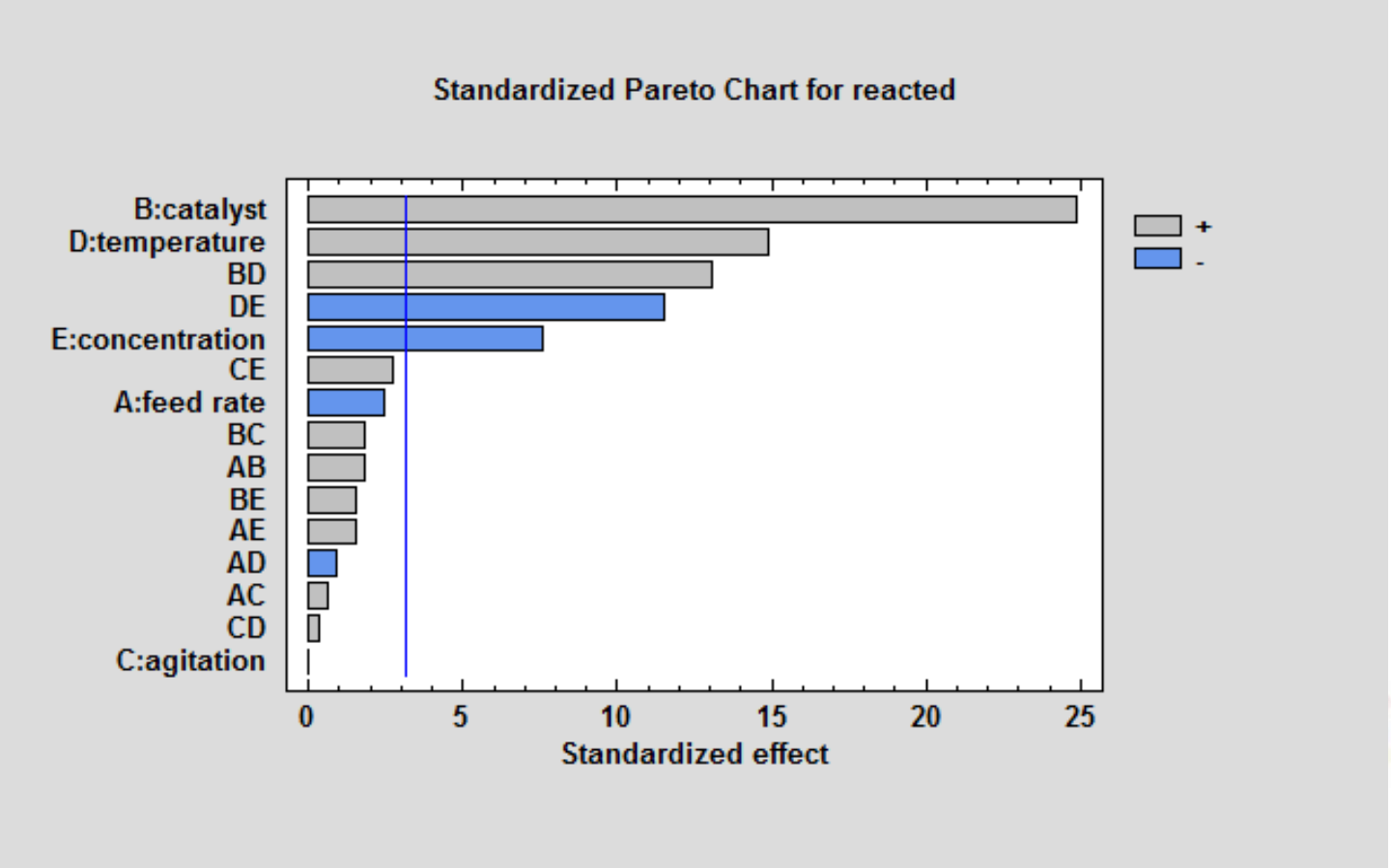
# #4. Copying Output to Other Applications

- Tables
- Graphs
- Numerical results

Methods:

- Copy and paste
- Save graphs as image files
- Using the StatReporter

# Copy and Paste

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# Copy and Paste

Book1

| | A | B | C | D | E | F | G | H | I | J | K |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | Observed | Fitted | Lower 95.0% | Upper 95.0% | Lower 95.0% | Upper 95.0% CL | | | | |
| 2 | Row | Value | Value | for Forecast | for Forecast | for Mean | for Mean | | | | |
| 3 | 1 | 65 | 65.2105 | 59.8262 | 70.5948 | 64.0066 | 66.4145 | | | | |
| 4 | 2 | 56 | 55.9605 | 48.5571 | 63.3639 | 50.7385 | 61.1825 | | | | |
| 5 | 3 | 53 | 52.9605 | 45.5571 | 60.3639 | 47.7385 | 58.1825 | | | | |
| 6 | 4 | 63 | 62.9605 | 55.5571 | 70.3639 | 57.7385 | 68.1825 | | | | |
| 7 | 5 | 65 | 64.9605 | 57.5571 | 72.3639 | 59.7385 | 70.1825 | | | | |
| 8 | 6 | 53 | 52.9605 | 45.5571 | 60.3639 | 47.7385 | 58.1825 | | | | |
| 9 | 7 | 55 | 54.9605 | 47.5571 | 62.3639 | 49.7385 | 60.1825 | | | | |
| 10 | 8 | 67 | 66.9605 | 59.5571 | 74.3639 | 61.7385 | 72.1825 | | | | |
| 11 | 9 | 61 | 60.9605 | 53.5571 | 68.3639 | 55.7385 | 66.1825 | | | | |
| 12 | 10 | 67 | 65.2105 | 59.8262 | 70.5948 | 64.0066 | 66.4145 | | | | |
| 13 | 11 | 69 | 68.9605 | 61.5571 | 76.3639 | 63.7385 | 74.1825 | | | | |
| 14 | 12 | 45 | 44.9605 | 37.5571 | 52.3639 | 39.7385 | 50.1825 | | | | |
| 15 | 13 | 78 | 77.9605 | 70.5571 | 85.3639 | 72.7385 | 83.1825 | | | | |
| 16 | 14 | 93 | 92.9605 | 85.5571 | 100.364 | 87.7385 | 98.1825 | | | | |
| 17 | 15 | 49 | 48.9605 | 41.5571 | 56.3639 | 43.7385 | 54.1825 | | | | |
| 18 | 16 | 60 | 59.9605 | 52.5571 | 67.3639 | 54.7385 | 65.1825 | | | | |
| 19 | 17 | 95 | 94.9605 | 87.5571 | 102.364 | 89.7385 | 100.183 | | | | |
| 20 | 18 | 82 | 81.9605 | 74.5571 | 89.3639 | 76.7385 | 87.1825 | | | | |

Sheet1 Sheet2 Sheet3

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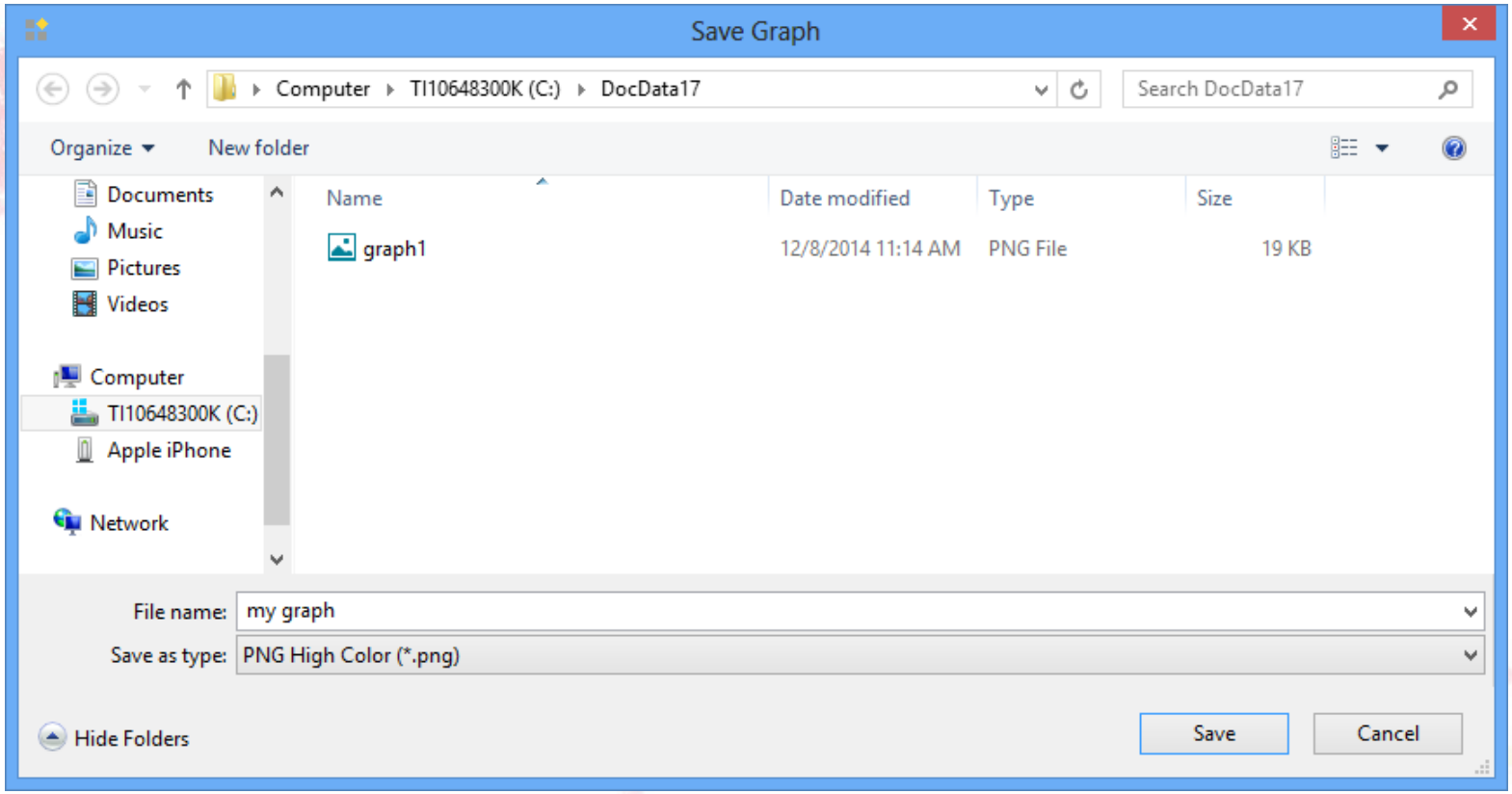
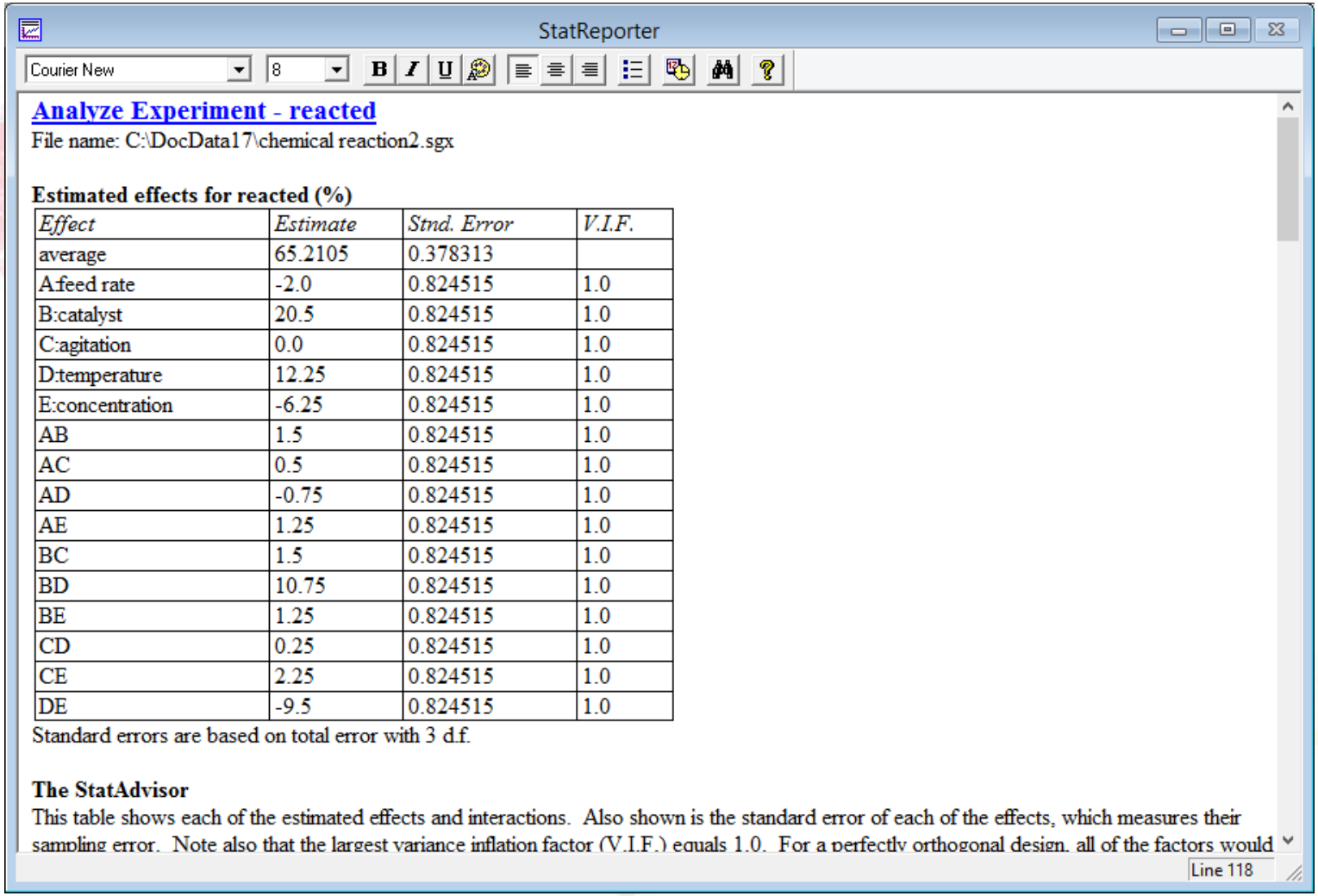
# Image Files



# Using the StatReporter

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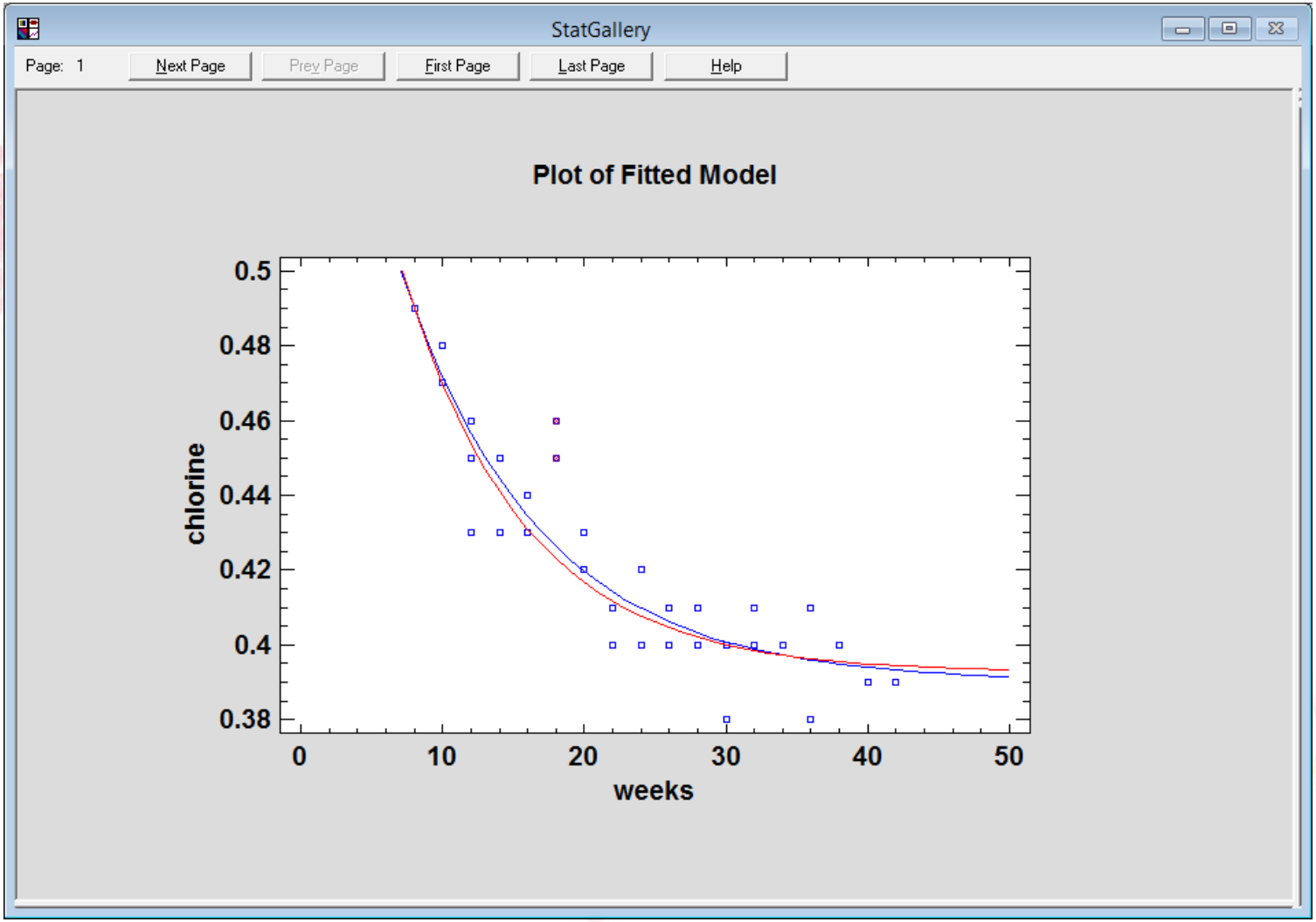
# #5. The StatGallery

- Used to place more than one graph on a single printed page.

- Also used to overlay a graph on top of another.

# Example – Nonlinear Regression

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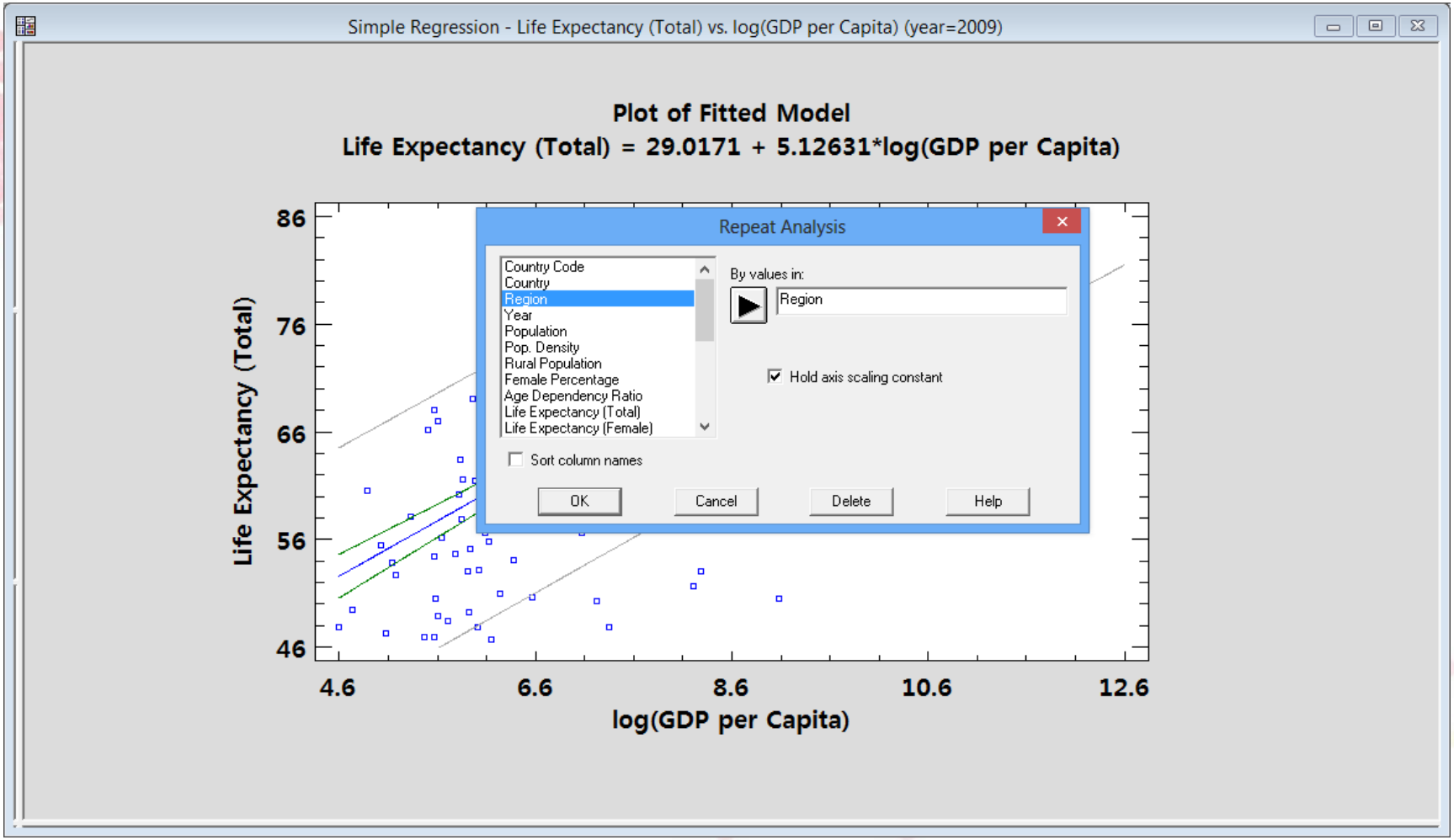
# #6. Repeat Analysis By…

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# #7. Value Labels

- *Value labels* are strings assigned to each value in a numeric data column.

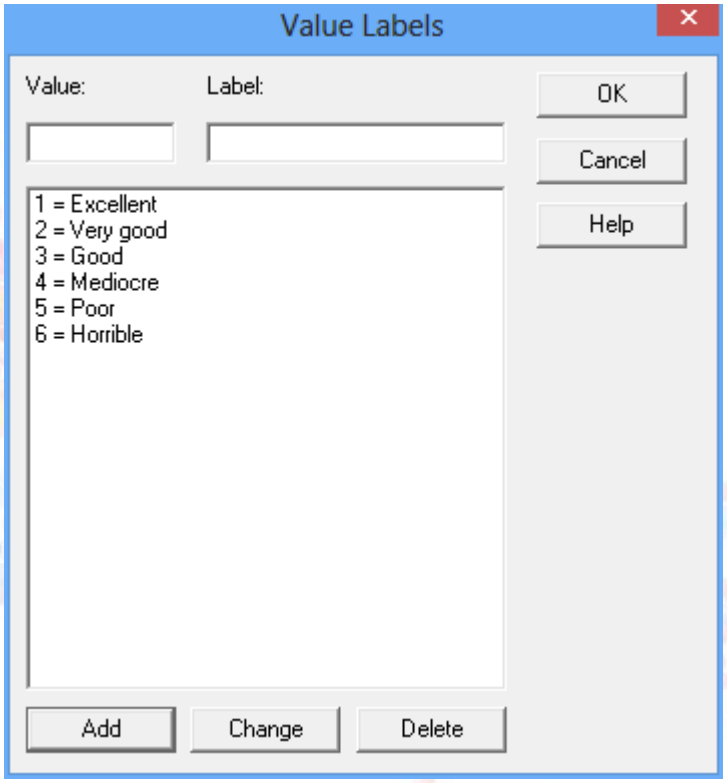
- Allow entry of numeric values which are replaced by labels on output.

- Very helpful for entering survey data.

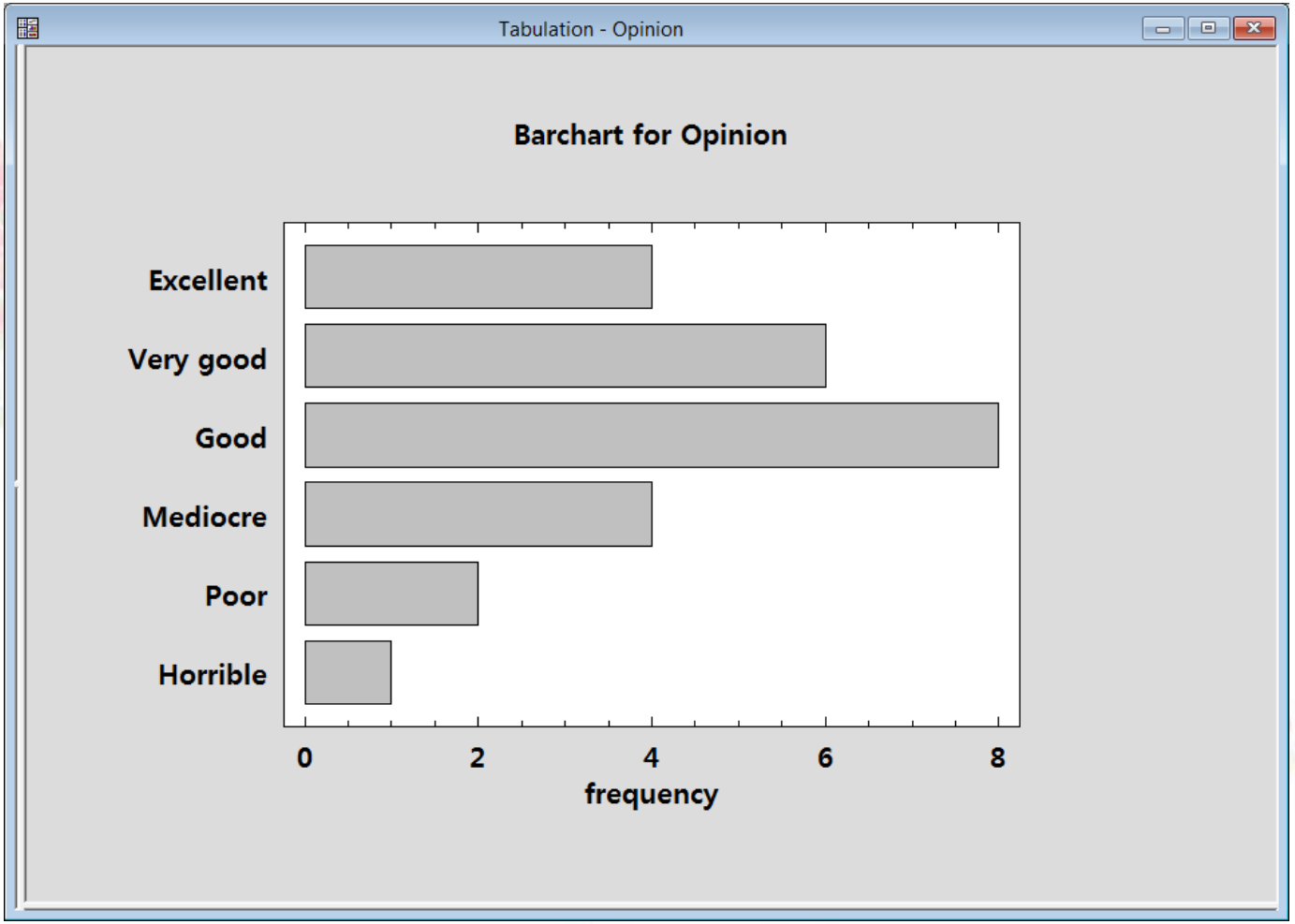
# Example

- Suppose you ask 500 people to taste a new type of ice cream and rate it as:
  - Excellent
  - Very good
  - Good
  - Mediocre
  - Poor
  - Horrible

# Column Definition



# Output



# More Information

- Go to www.statgraphics.com
- Click on “Watch a Video”.
- Complete the form and press “Go to Video”.
- Click on “Watch another video”.

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