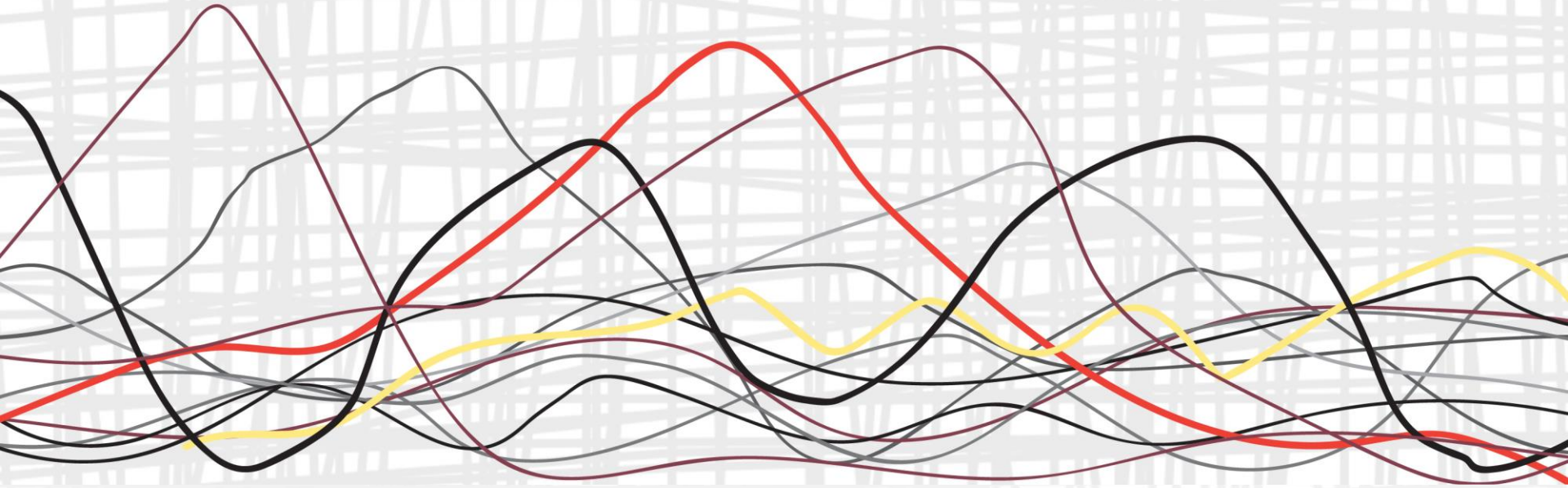
statgraphics 19®

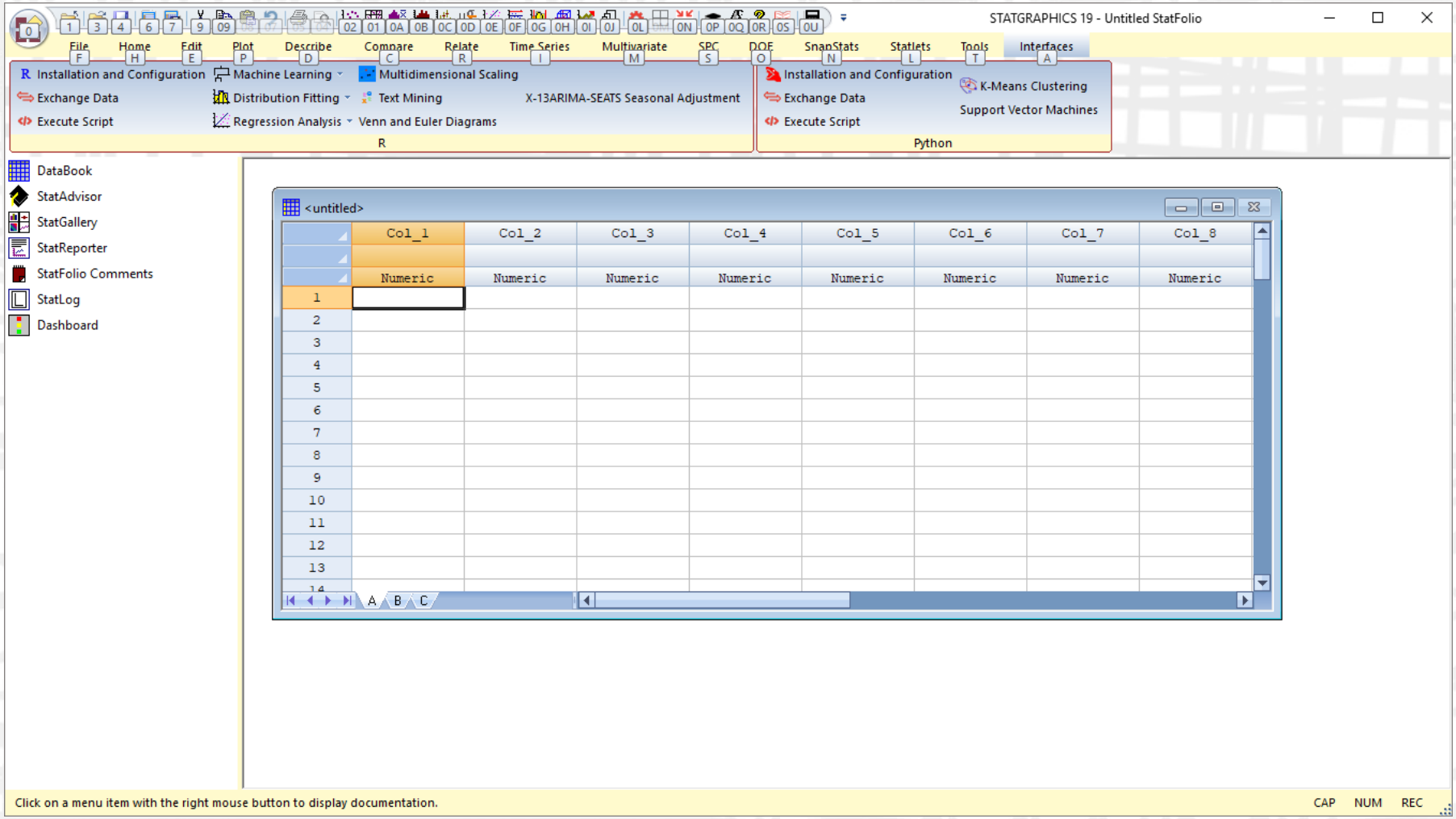
Python Interface



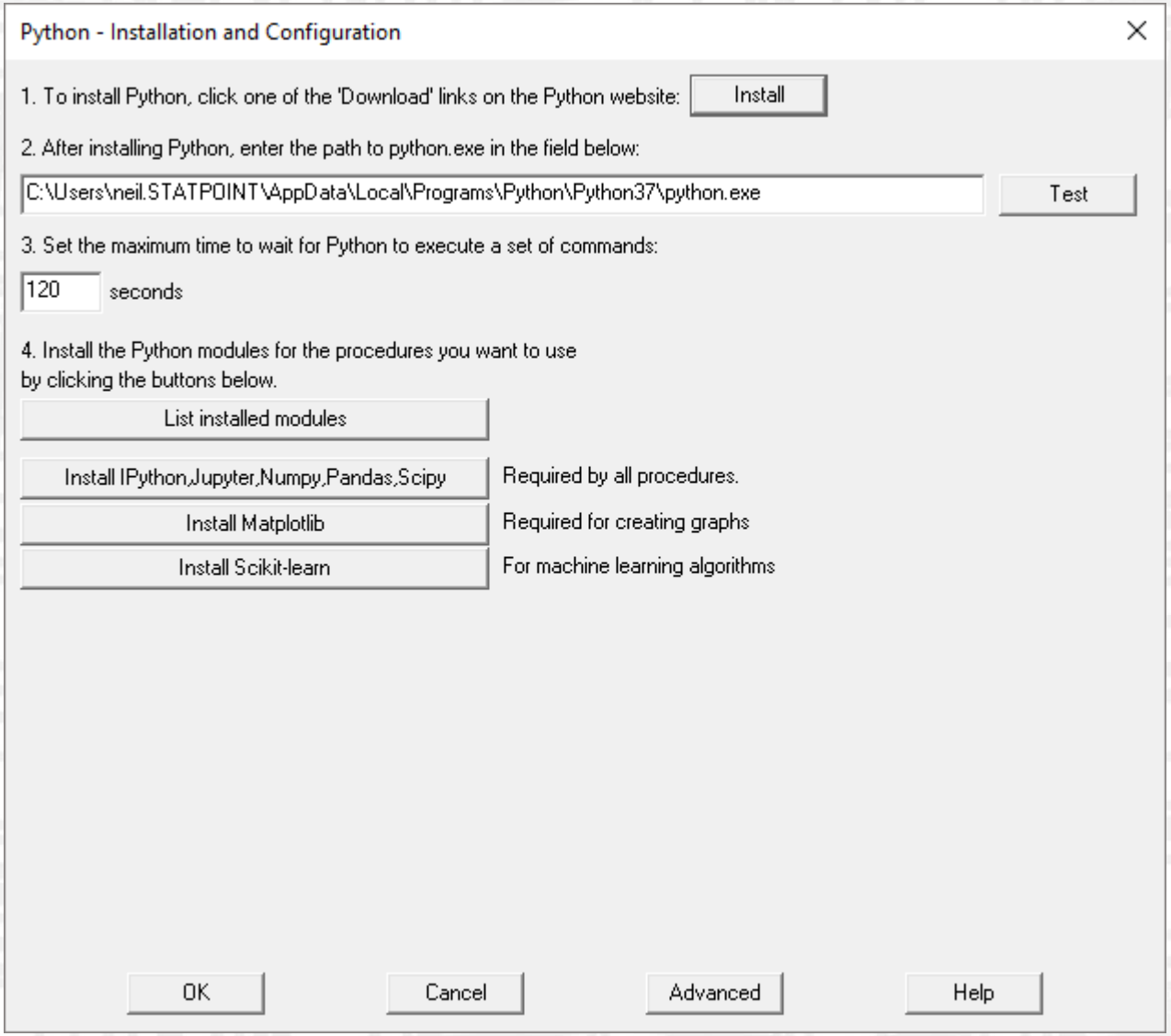
Features of Statgraphics/Python Interface

- Exchange data easily between Statgraphics and Python.
- Run saved Python scripts on data stored in a Statgraphics StatFolio.
- Retrieve output from Python and work with it in Statgraphics.
- Access Python libraries from within Statgraphics procedures.

Interfaces Menu



Installation and Configuration



Exchange Data: Export

Export Data to Python

Step 1: Specify Python DataFrame to be created:

Name: data ☐ Save strings as categorical variables

Step 2: Select columns to transfer (if not all).

Select columns

Step 3: Export data to a CSV file:

Export C:\Users\NEIL~1.STA\AppData\Local\Temp\statgraphics_data.csv

Step 4: Enter the following command in the Python window:

Copy

```
import pandas
import numpy
data = pandas.read_csv(r'C:\Users\NEIL~1.STA\AppData\Local\Temp\statgraphics_data.csv')
data=data.replace(-32768,numpy.NaN)
```

Step 5: To display the data, enter the following command in the Python window:

Copy

```
data.info
```

Exchange Data: Import

C:\Users\neil.STATPOINT\AppData\Local\Programs\Python\Python37\python.exe

```
>>> import pandas as pd
>>> from sklearn.datasets import load_boston
>>> data=load_boston()
>>> results = pd.DataFrame(data.data, columns=data.feature_names)
>>> results.head()
      CRIM    ZN  INDUS  CHAS    NOX     RM   AGE     DIS  RAD    TAX  PTRATIO       B  LSTAT
0  0.00632  18.0   2.31   0.0  0.538  6.575  65.2  4.0900  1.0  296.0     15.3  396.90   4.98
1  0.02731   0.0   7.07   0.0  0.469  6.421  78.9  4.9671  2.0  242.0     17.8  396.90   9.14
2  0.02729   0.0   7.07   0.0  0.469  7.185  61.1  4.9671  2.0  242.0     17.8  392.83   4.03
3  0.03237   0.0   2.18   0.0  0.458  6.998  45.8  6.0622  3.0  222.0     18.7  394.63   2.94
4  0.06905   0.0   2.18   0.0  0.458  7.147  54.2  6.0622  3.0  222.0     18.7  396.90   5.33
>>>
```

Import Data from Python

Step 1: Specify Python DataFrame to be imported:

Name: results

Step 2: Specify temporary file to be created:

Filename: C:\Users\NEIL~1.STA\AppData\Local\Temp\Python_results.csv

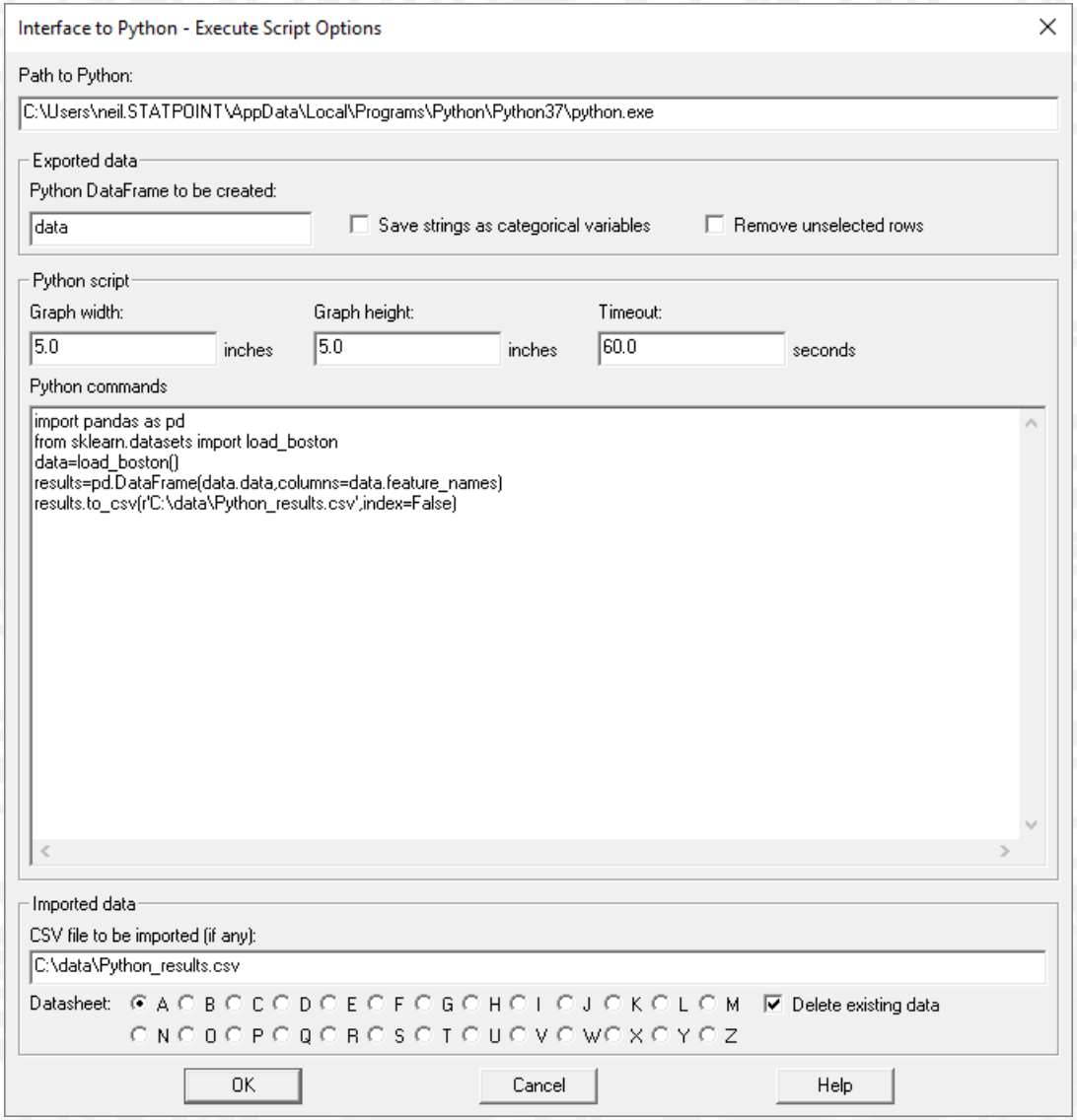
Step 3: Enter the following command in the Python window:

Copy | results.to_csv(r'C:\Users\NEIL~1.STA\AppData\Local\Temp\Python_results.csv',index=False)

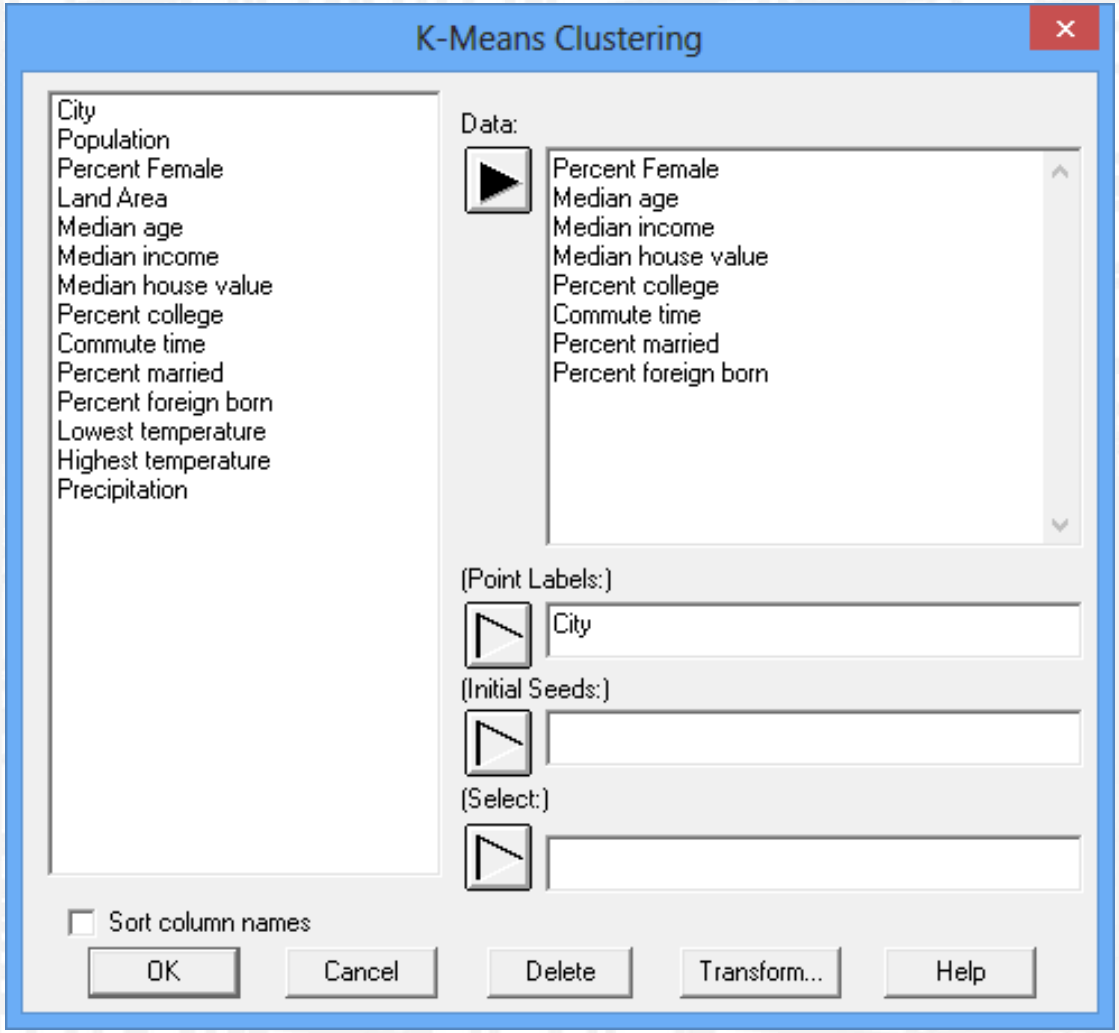
Step 4: Import data to a Statgraphics datasheet:

Import | Sheet: ○ A ◉ B ○ C ○ D ○ E ○ F ○ G ○ H ○ I ○ J ○ K ○ L ○ M ○ N ○ O ○ P ○ Q ○ R ○ S ○ T ○ U ○ V ○ W ○ X ○ Y ○ Z ☐ Delete existing data

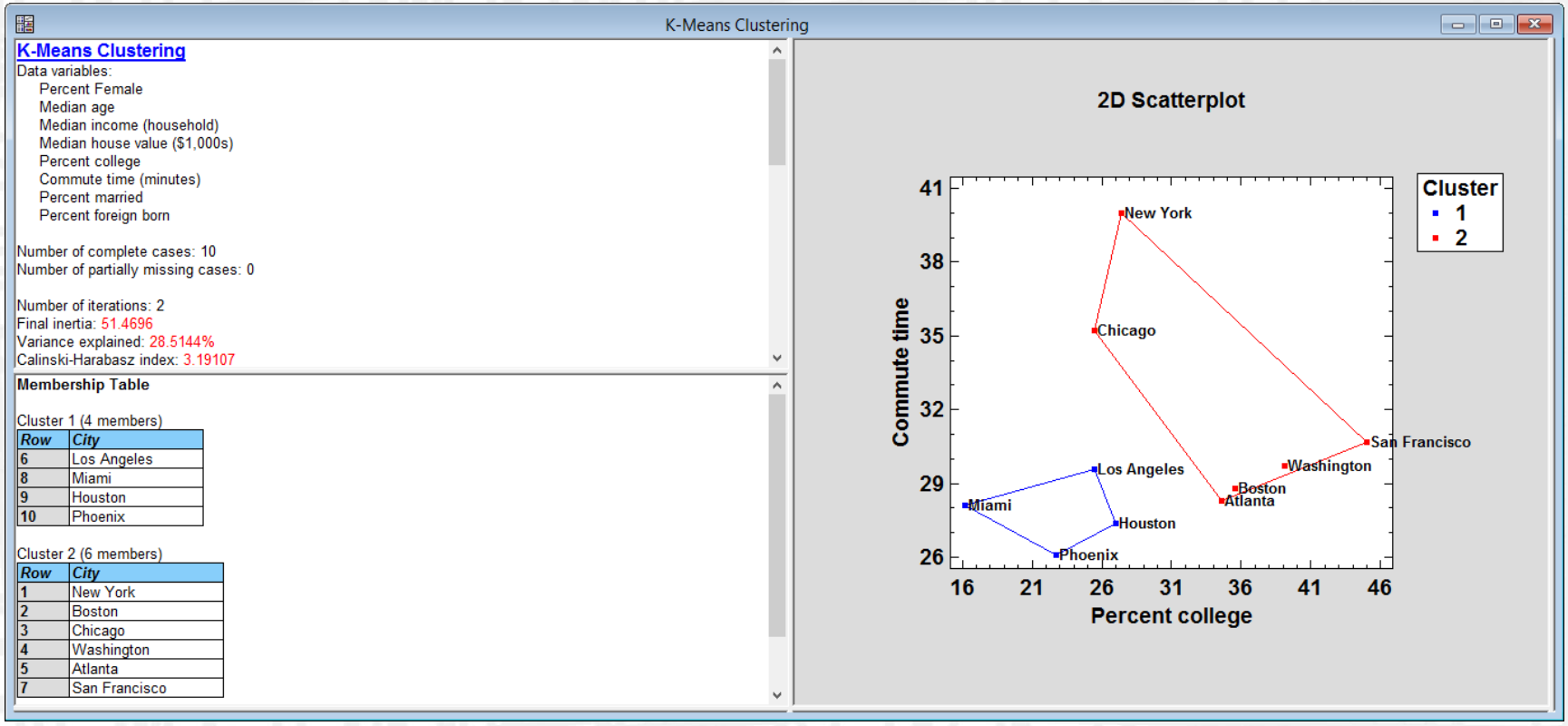
Running Python Scripts



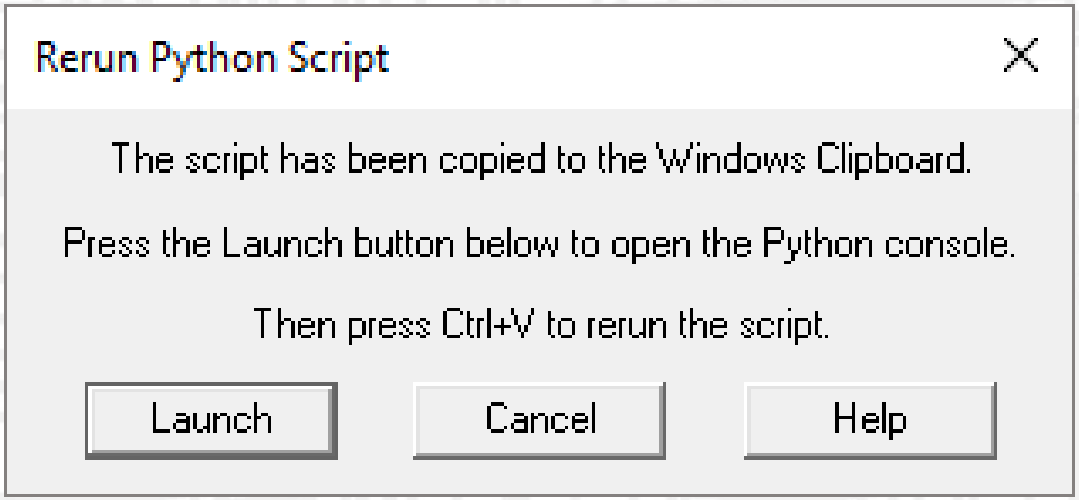
Accessing Python Libraries



Accessing Python Libraries



Rerunning Script



References

These notes and the recorded webinar will be posted at:

www.Statgraphics.com/webinars