Decision Tools: StatTools

Basic Overview: It is essentially an add-on to Microsoft Excel which allows you to accurately perform time series and a statistical analysis on the data.

Statistically Analyzing Your Data Effectively

- Statistical Procedures
- Manipulating Data
- Managing Data
- Advanced Procedures and General Rules

Statistical Procedures

1. Open Microsoft Excel and click on the "StatTools" tab. This will show all the available options for this program.
2. On the top of the screen, there will be several options: "Summary Statistics", "Summary Graphs", "Statistical Inferences", "Normality Test", "Time Series and Forecasting", "Regression and Classification", "Quality Control", and "Nonparametric Tests". Each of these can display data in a specific manner.
3. For example, if you want to do Chi Test, click on "Normality Test". Then click on "Chi Test".
4. This will then open up a new window, where you can choose the "Data Set" that you want to be tested. Check mark the desired data set and click "Ok"

Manipulating Data

1. Click on the "Data Utilities" option
2. This will display several options: "Stack", "Unstack", "Transform", "Lag", "Difference", "Interaction", "Combination", "Dummy", and "Random Sample". Each of these options can control the data.
3. For example, if you wanted to increase the salary by 2%, you would click on "Transform".
4. Then a new window will appear and you will be prompted to select your "Data Set". Check your desired Data Set and then click on the "Formula" option.
5. In the box to the right of the option, you can type in "Variable*1.02". Click "Ok". Another window will appear saying that transforming data might shift your rows and columns. Click "Yes" to continue. Your transformed data will appear to the right of your old data.

Data Management

1. Click on the "Data Set Manager" option. This will open a new window.
2. In this new window you will be establish a Data Set Name in the box to the right of "Name".

3. If you want to adjust the cells that are included in the Data Set, in the box to the right of "Excel Range", type in the starting cell and the ending cell. For example: I want data from B37 to B92, I would write "B37:B92".
4. Check the box, "Apply Cell Formatting".

Advanced Procedures and General Rules

- You can program your own custom statistic procedures for StatTools. However, this requires C++ and intensive programming knowledge in order to be effective.
- You can copy and paste data sets from outside sources into Excel.
- You can display your data set the same way you did in Excel. For more information on displaying data, refer to the Microsoft Excel Guide above.

For Video Reference: http://www.palisade.com/stattools/5/tips/en/gs/

Decision Tools: PrecisionTree

Basic Overview: It is essentially an add-on to Microsoft Excel which allows you to accurately map out complex and convoluted tasks into an easy to see decision tree.

Establishing an Effective Decision Tree

- Creating a New Tree
- Adding Nodes
- Finishing the Tree

Creating a New Tree

1. Open Microsoft Excel. Click on the "PrecisionTree" tab.
2. Click on the "Decision Tree" option and select a Cell. Click on "Ok".
3. This will open a new window. In this window you can establish the name of the Decision Tree, in the box to the right of "Name". Click "Ok".

Adding Nodes

1. To add a new node, click on the end node of our tree's root. It is arrow shaped.
2. This will open a new window, click on the "Decision" option. This will bring you to a new frame where you can adjust the name. The other options add branches with specific properties to them. If you choose the "Chance" option, you will have the ability to adjust the probability of each branch later.
3. Click on the tab "Branches".

4. Here you can adjust the names of the branches by clicking on the respective label. You can add branches by clicking the “Add” option on the right and delete branches by clicking on the “Delete” option. You can adjust the value of the Branch by typing in the desired value under the “Value” title.

Finishing Tree

1. Right Click on a Node
2. You can add branches or remove branches at a node. To add branch, click on “Add Branch”. To get rid of the all the branches beneath the node, click on the “Collapse Branch” option.
3. Adding and removing branches will update the values of the tree.

For Video Reference: http://www.palisade.com/precisiontree/5/tips/en/gs/