The Data Analysis Tool

The Data Analysis tool imports and analyzes data in Oracle’s Crystal Ball. The data is imported directly into Crystal Ball forecast charts, one for each data series. Then, you can analyze it using any of Crystal Ball’s features. This tool differs from the standard use of Crystal Ball because the data within the resulting histograms is not simulated data but actual data!

In this example, you are reviewing a loan process and need to better understand the loan closing data, especially the capability of the step in the process. You have observed data (column O and have an upper specification limit, lower specification limit and target value.

Opening the Tool and Selecting the Data

You can open the Data Analysis tool through the Run -> Tools menu.

When the tool opens, you will see a Welcome screen. Click on Next. In the Input Data dialog, the tool will show you your data. To use the Data Analysis tool, your data series must be contiguous (in adjacent rows or columns) in either rows or columns.
One-Minute Spotlight

If you have specification limits and target, you must define these in this step, as well as have the Calculate capability metrics option checked in the Run preferences > Statistics tab. Simply click out to the worksheet and select the cells in the described order.

Click on Next to move to the Options dialog (shown below).

Select the Run and Output Options

In the Options dialog, you can select various run and output options, including a correlation matrix for multiple rows or columns of data. You can also fit a distribution to the data.

When your options are set, click on Run to generate the Data Analysis Tool output.
Analyze the Output

When the Data Analysis tool runs, it creates one or more forecast charts and a new workbook with data and buttons on a worksheet named DataAnalysisOutput. On the new worksheet for the output, you can view forecast, trend, and overlay charts for your data (the latter two choices are only good for multiple columns or rows of data).

In this example, you have one forecast chart for the Loan Closing data. The forecast chart opens in split view so that you can view the histogram and the statistics. You can select other views from the View menu. The data passed the normality test and even fit to a Normal distribution. The data has a mean of 16, a standard deviation of 4, a Sigma Level (Zst-total) of 1.84, and a Cpk of .6754.
An additional feature of the Data Analysis tool is the ability to compare actual data with simulated data. For example, if you had actual start-to-finish data for the loan process, then you could simultaneously analyze the actual process data and run a simulation model! After the tool is run, you can create an overlay chart to compare the two forecasts (shown below).

For more information or to contact us, browse to http://www.oracle.com/crystalball.