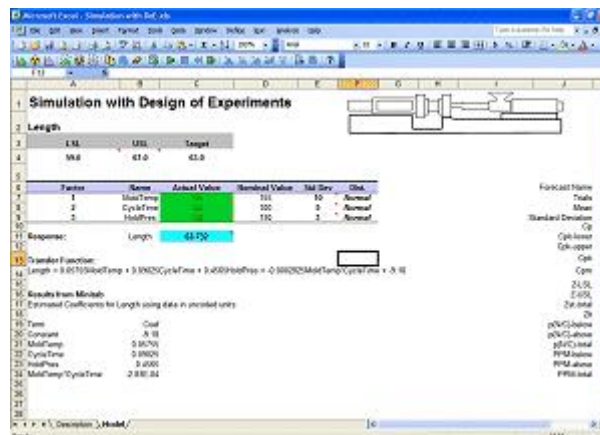


Crystal Ball Software and Risk Analysis Tips

Simulation with Design of Experiment: How to Use Crystal Ball and MINITAB Together

Since many Crystal Ball modelers use Crystal Ball and MINITAB together, we included a Crystal Ball model along with a MINITAB file in our examples folder. Additionally, the Process Capability Guide (available with version 7.2) walks you through the details of how the two different software tools can be used in tandem.

Simulation with DoE.xls (in the Examples folder, included with the software) shows how to combine Monte Carlo simulation with Design of Experiments methodology to save money during product design. We have also included a MINITAB project file (doesim.MPJ) in the Crystal Ball Examples folder that contains the input and output data that are the basis for the Microsoft Excel model. For those who do not use MINITAB, the transfer function and other MINITAB results have been included in the Description tab of the model workbook.



This Simulation with DoE Crystal Ball model uses the results from a designed experiment to simulate variability in part length based on variability in each of three factors specified in a transfer function developed through a factorial fit completed in MINITAB. When you run the simulation in Excel, Crystal Ball automatically extracts the capability metrics at the end of the simulation. You can quickly see how the variable inputs affect process capability and Sigma Level. You can also generate a sensitivity chart to see which of the three input factors has the greatest effect on part length.

For more information or to contact us, browse to <http://helpdesk.crystalball.com>

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