

Crystal Ball Software and Risk Analysis Tips

(#32) Performing Deterministic Optimizations

When performing an optimization, you can classify models as either stochastic or deterministic. In a stochastic model, some of the model data are uncertain and are described with probability distributions, such as with Crystal Ball. Stochastic models are much more difficult to optimize because they require simulation to compute the objective value. However, stochastic models better represent most real-life situations because these models address uncertainty. Being able to optimize stochastic models is what makes OptQuest so powerful.

In a deterministic model, all input data are constant or assumed to be known with certainty. You might want to solve a model deterministically, either because all the model data are certain, or because you need to quickly test or approximate the stochastic model. While OptQuest is designed to solve stochastic models using Crystal Ball, it is also capable of solving deterministic models.

To select the Deterministic option in OptQuest, go to the Tools > Options > Advanced tab > Optimization Type and change the selection from Stochastic to Deterministic. When solving a model deterministically, OptQuest only uses the current values in the assumption cells for its analysis.

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

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