Specifying Optimization Stop Condition

Optimization can stop under two circumstances: the maximum number of simulations is exceeded or the value of the objective function stops improving significantly. The latter is also known as *automatic stop*. You can use either of these conditions to stop an optimization. If more than one condition is specified, optimization stops when the first condition is satisfied.

Set up these settings of an optimization process on the **General** properties page of the optimization experiment.

To stop optimization after the specified number of iterations

1. Select the optimization experiment by clicking on it in the **Projects** view.
2. Go to the **Properties** view.
3. Specify the number of iterations in the **Number of iterations** edit box. The optimization stops when this number is exceeded.

Be careful when using the **Automatic stop** option. In the case of an optimization jam, (i.e., when the objective function is changing too slowly), it is possible that optimization will stop long before the real optimal solution is found. If you encounter this problem, suggest other parameter values, or do not use Automatic stop.

To switch optimization autostop on

1. Select the optimization experiment by clicking on it in the **Projects** view.
2. Go to the **Properties** view.
3. Select the **Automatic Stop** check box.

Please note that the number of simulations influences the optimization strategy. If the number of simulations is small, the OptQuest Engine uses an aggressive search strategy to exploit the parameter space. If the number is rather large, the OptQuest Engine uses a more conservative strategy to thoroughly explore the search space.