

Configuring a simulation

Assume that you have chosen a suitable simulation set, and made sure that all the nodes in the set are represented inside a folder. You can then proceed by opening this folder in "Simulation view". In this view you can select various simulation options. Some of these options apply to the entire simulation set, and are stored as attributes in the folder. These include:

- Goal node
- Seed
- Seed lock
- File name
- # Main simul. runs
- # Crit. simul. runs

Other options are specified individually for each node in the simulation set. These are:

- Sim.
- Crit.
- Sens.
- S.fact.

Goal node

For each simulation set DynRisk lets you choose a particular node as "Goal node" among the nodes in the set.

A goal node is typically a high level result node, or the node representing some sort of key performance measure in your risk model.

Selecting a goal node is optional. You do not need to do this to run a simulation. However, if you do select a goal node for the simulation set, you can, during a simulation, measure how other nodes in the simulation set affect this particular node in various senses. This is often a very important part of a risk analysis.

If you have not yet selected a goal node for your simulation set, the goal node field, located in the upper left-hand corner of the window, will display “No goal node”.

A goal node is selected as follows:

- 1) Select the node you want to make your goal node. This is done by clicking the node's icon located on the left-hand side in the “Simulation view” table.
- 2) Click the goal node field.

As a result, the goal node field now displays the name of the selected goal node.

If you later want to change the goal node for your simulation set, just repeat the above procedure with the new goal node. This will replace the old goal node selection by the new one.

If for some reason you want to return to the “No goal node” state again, make sure that no node is selected in the view, (if necessary, click at some empty spot in the window) and click the goal node field. This will cancel the goal node selection, and the goal node field will once again display “No goal node”.

Seed/Seed lock

The seed is an integer used as a start value for the random number generator, and can be any number between 1 and 2147483646. If you run two simulations on the same model, and with the same seed, the results will be exactly the same.

The seed settings of a folder is shown in the upper left-hand part of its window when viewed in “Simulation view” mode.

If the border of the “Seed” field is a solid line, the seed is locked to the value specified in the field. Unless you change it yourself, DynRisk will use the current seed value each time you run a simulation. To change the seed, you just enter a new number into the field.

If the border of the “Seed” field is a dotted line, the seed is unlocked. This means that DynRisk will generate a new random seed each time you run a simulation, and display the new seed in the “Seed” field afterwards. In this case there is no point in editing the seed yourself, since DynRisk will ignore your choice anyway. In fact you will see that in this case you are not allowed to edit the seed.

You lock and unlock the seed by clicking the “Set” button to the right of the field.

Note that when the seed is locked, the seed field displays the seed to be used in the next simulation, while if the seed is unlocked, the seed field shows the seed that was used in the previous simulation.