

The “Event” popup menu is used to choose the event type. A DynRisk event supports the following event types:

- Set number
- Get number

#### Set number

The “Set number” event is used to set attributes of a node during a simulation. Which attribute to set, is controlled by the “Property” popup menu. The following attributes are available:

- Local factor
- Param (a)
- Param (b)
- Param (c)

Note, however, that you are not allowed to set the attributes “Param (a)”, “Param (b)”, or “Param (c)” on a node which is currently being simulated. You can, however, set these parameters on a node in a separate model, and then include another DynRisk event in the current model that initiates a single run simulation on the node after it has been modified.

#### Get number

The “Get number” event can be used to get attributes or simulation results from a node during a simulation. Which attribute or result to get, is controlled by the “Property” popup menu. The following attributes are available:

- Local factor
- Param (a)
- Param (b)
- Param (c)

A “Get number” event can also initiate single run simulations on a node in a

separate model. This works just as if the event did a “Quicktest” on this node. You can choose between deterministic and random results, just as in the “Quicktest” dialog. Moreover, you can choose between input, local, and output values. This yields the following list of options:

- Determ. input
- Determ. local
- Determ. output
- Random input
- Random local
- Random output

Finally, a “Get number” event can be used to resample from the simulation values of a data node. The following resample options are available:

- Determ. output
- Random output
- Ranked output

The “Determ. output” simply gives you the “Base value” attribute of the data node.

The “Random output” gives you a random sample drawn from the set of simulation values for the data node.

Note that if you, in your model, resample from several data nodes located in the same result file, it is important to preserve the correct dependence between these data nodes. DynRisk does this by making sure that within a simulation run on your current model, you always get resampled values from the data nodes which occurred in the same run in the original simulation, i.e., the simulation that produced the data nodes.

Note also that if you, in your model, resample from several data nodes located in different result files, DynRisk has no way of preserving any possible dependence between the data nodes. As a result, such data nodes would be treated as if they were completely independent. Thus, unless you think that this is a realistic assumption, you should avoid mixing together

data nodes from different files.

The “Ranked output” option is only of interest if you resample more than one data node in your model. Each event will then obtain a randomly sampled value from its corresponding data node. However, DynRisk will carry out the resampling on a ranked data set instead of the original set. Thus, if a large value is sampled for one of the data nodes, then the sampled values from the other data nodes will be large as well. Similarly, if a small value is sampled for one of the data nodes, then the sampled values from the other data nodes will be small as well.

This sampling method creates a very extreme kind of dependence, and should be used with caution. It is probably most useful in a sensitivity analysis where you want to find an upper bound on the effect of dependence.

Note that the “Ranked output” option works for data nodes in the same result file as well as data nodes located in different files.