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Execute

OMiLAB Training Module 2

Modelling Case

A guided example

Use Case

A beekeeper brings his beehives for the honey harvest from the apiary to the headquarters to extract the honey there. This is done in 4 months (or 18 weeks) a year, which corresponds to about 90 working days a year. First, the beekeeper must check the hive on site. Only when enough honey has been collected in the hive for harvesting, it is prepared for transport. Otherwise the beehives are not harvested. As soon as the beehive is ready for transport, it is transported to the headquarters by a driver. In the headquarters the honey is extracted. Afterwards, the extracted honey is recorded in the book by the accounting department, and the transport of the hive is planned. Furthermore, it is transported back to the apiary and placed at a suitable position. The transport is again taken over by a driver hired for this purpose.

- On average, 8 kg of honey is harvested per beehive. Always 5 beehives are transported at once.
- How much working time is needed on average to harvest 1 kg of honey?

Task 1: Model a BPMN model for the text above.
Task 2: Simulate this process to answer the question.

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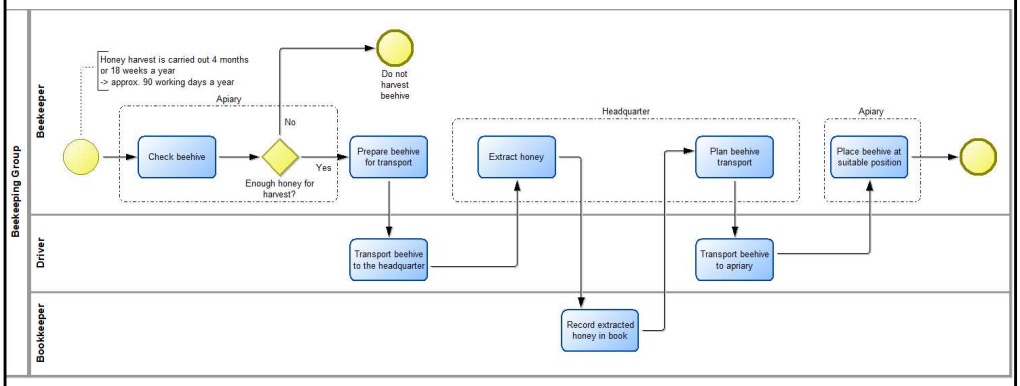
Live-Modelling

Sample Solution Task 1



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Process Times & Probabilities for Task 2

Task	Execution Time	Waiting Time	Resting Time	Transport Time
Check beehive	5 min	0 min	0 min	0 min
Prepare beehive for transport	8 min	0 min	0 min	3 min
Transport beehive to the headquarter	24 min (2 hours devided by 5)	0 min	0 min	0 min
Extract honey	30 min	5 min	0 min	0 min
Record extracted honey in book	5 min	0 min	0 min	0 min
Plan beehive transport	7 min	0 min	0 min	2 min
Transport beehive to apriary	24 min	0 min	0 min	0 min
Place beehive hat suitable position	8 min	0 min	0 min	0 min

Probability there is enought honey for harvest: 50 %

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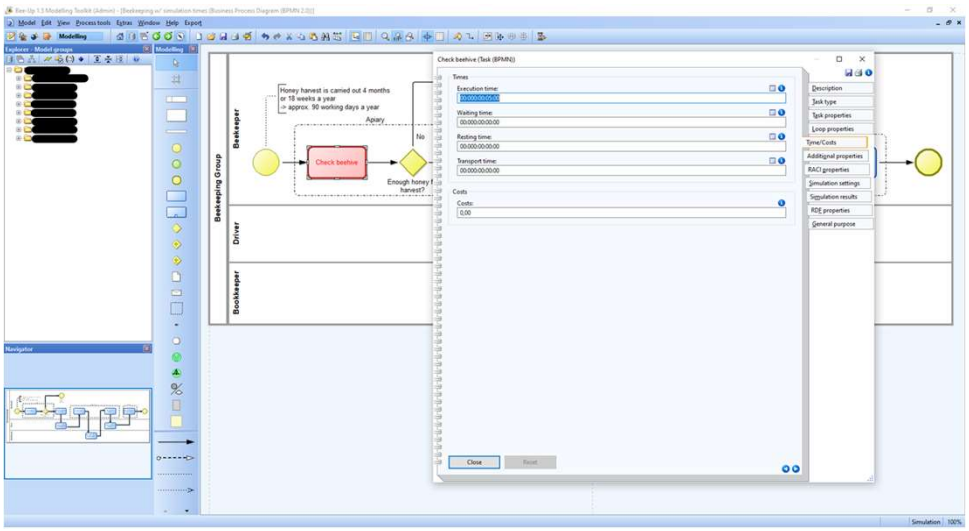
Live-Simulation

Times & Cost for Tasks



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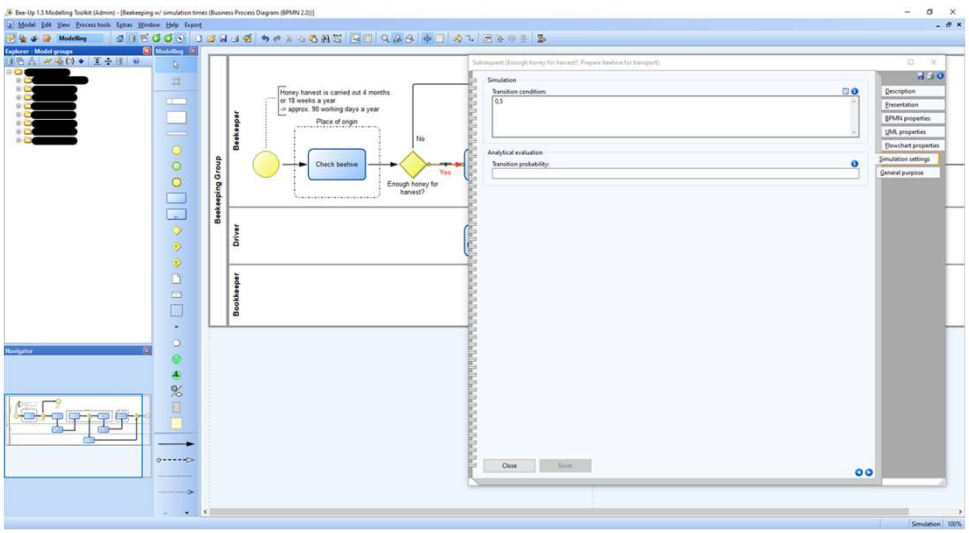
Probabilities for Gateways



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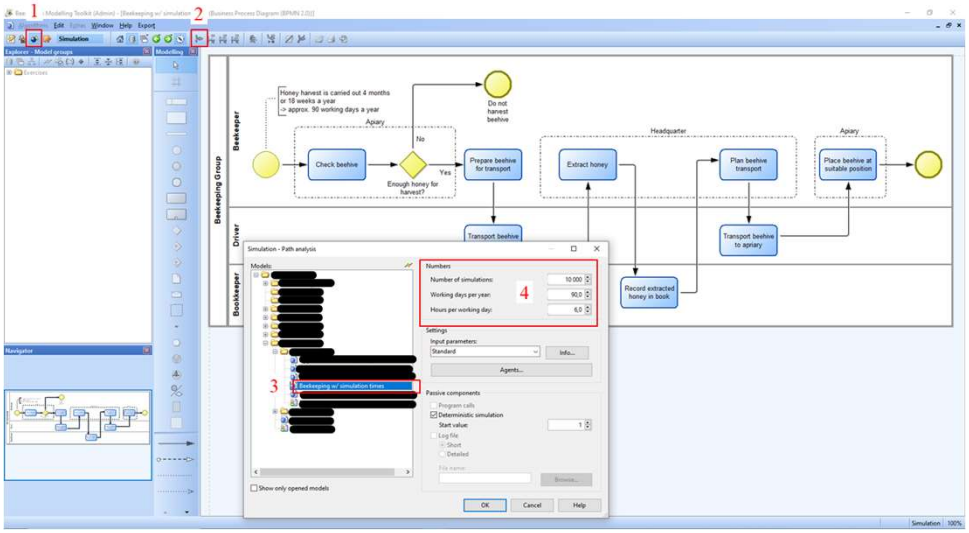
Path Analysis Settings



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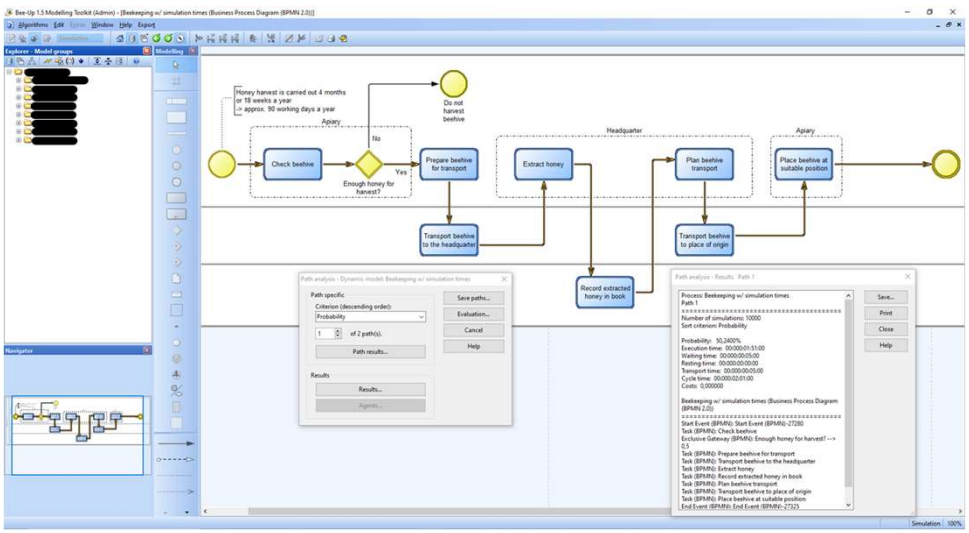
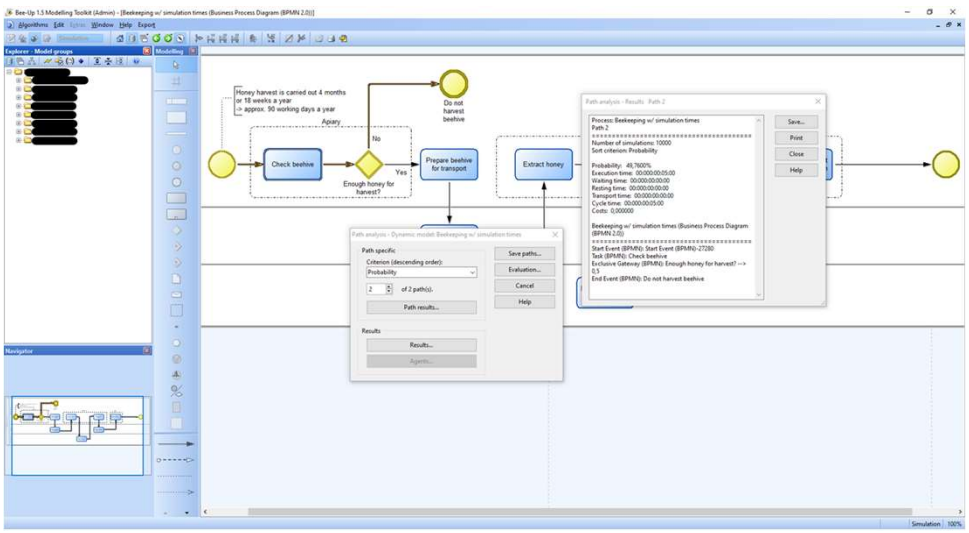
Result Path 1



Result Path 2



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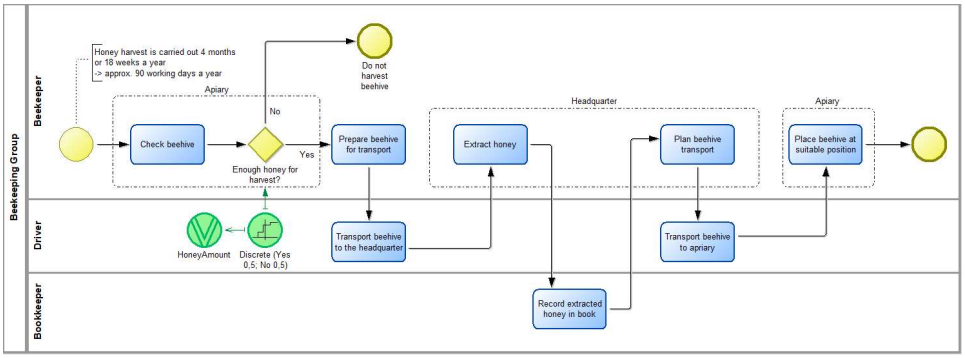
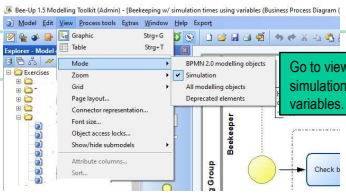
Simulation Using Variables



Task 3: Try this on your own.



Go to view > mode and select simulation in order to model the variables.

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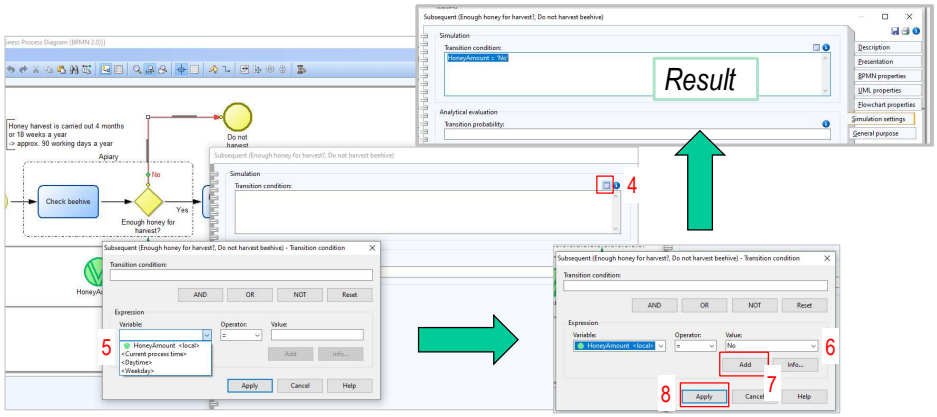
Solution Simulation with Variables

1. Draw the variable and the random generator
2. Double click on the arrow
3. Go to tab „Simulation Settings“
4. Click the small window button
5. Choose the variable
6. Choose the value
7. Add
8. Apply
9. Repeat for all paths