

GenIE



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of charge to academic users, we require a simple acknowledgment, including the name of the software (i.e., GeNIe Modeler, SMILE Engine or QGeNIe Modeler), name "BayesFusion, LLC" and a link to <http://www.bayesfusion.com/> in all publications that are based on our products.

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## GeNIe

Build, learn and explore Bayesian networks and other probabilistic graphical models. GeNIe Academic runs under Windows and (with Wine) on macOS and Linux. Help file is included with the program, you can also use the PDF or HTML versions of the manual linked below.

User manual: [PDF](#) [HTML](#)

**genie-academic-setup-4.1.3402-x86.exe**

GeNIe Academic (32-bit) EXE installer  
Size: 19.8 MB, released on Oct 2, 2023

**genie-academic-setup-4.1.3402-x86.msi**

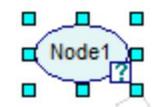
GeNIe Academic (32-bit) MSI installer  
Size: 21.4 MB, released on Oct 2, 2023

ew Tools Network Node Learning Diagnosis Layout Window Help



Network1)  
Network2)

Academic Use Only



- Double click the node to change it

Node properties: Node1

General Definition Format User properties

Type: Chance - General

Identifier: Node1

Name: Node1

Outcomes: Identifiers

Ordering: (none)

OK Cancel

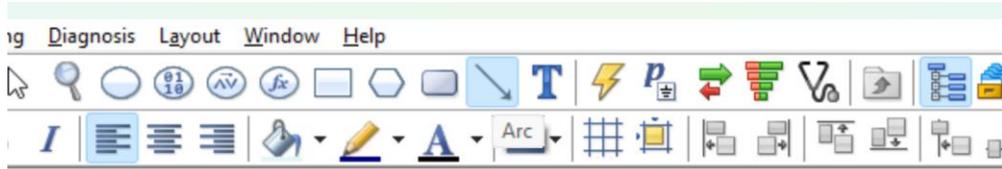
- Here you set the CPT

Node properties: Node1

General Definition Format User properties

▶ State0	0.5
State1	0.5

# You can link multiple nodes with arc tool



Drag and drop



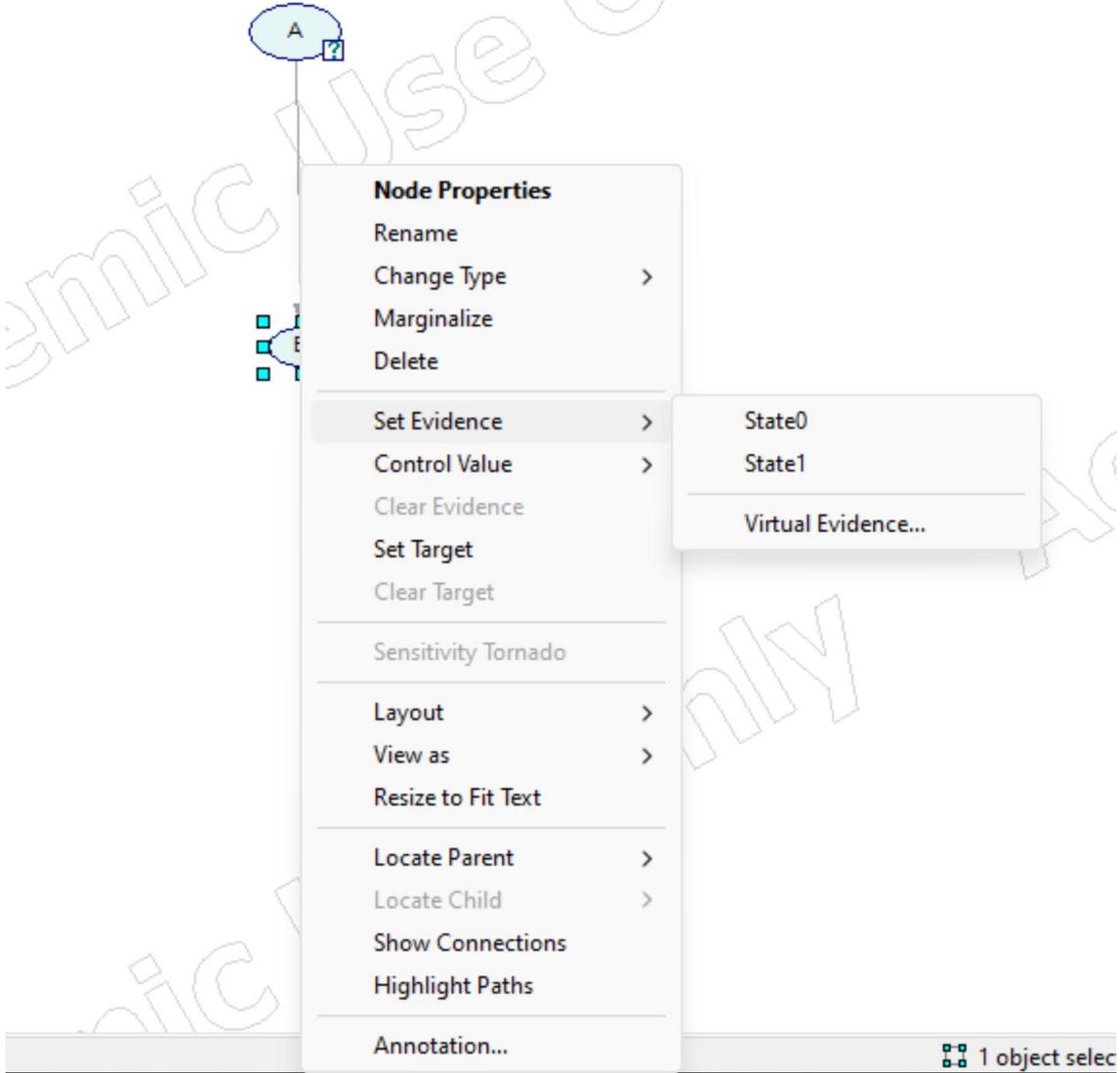
Now the state of B has a table you can populate that has a dependence on the state of A

The screenshot shows a dialog box titled "Node properties: B" with a light green title bar. It has four tabs: "General", "Definition", "Format", and "User properties". The "Definition" tab is active. Below the tabs is a toolbar with icons for grid operations (add, move, delete), document operations (copy, paste), and mathematical symbols ( $\Sigma=1$ ,  $1-\Sigma$ , a grid, a pie chart, a printer, and a percentage sign). The main area contains a table with the following data:

A	State0	State1
▶ State0	0.5	0.5
State1	0.5	0.5

At the bottom right of the dialog box are "OK" and "Cancel" buttons.

To set evidence,  
right click node



# Calculating marginals

- Right click network -> update beliefs
- Right click node -> node properties ->value

