USER MANUAL v1.7

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1. Installation

1.1 For windows users

You are not sure to have a java virtual machine installed, just unzip the directory "for_windows_users" and click on "novelgenerator.bat" to start the application. That's all. (there is a Java Virtual Machine included inside for windows 64bit).
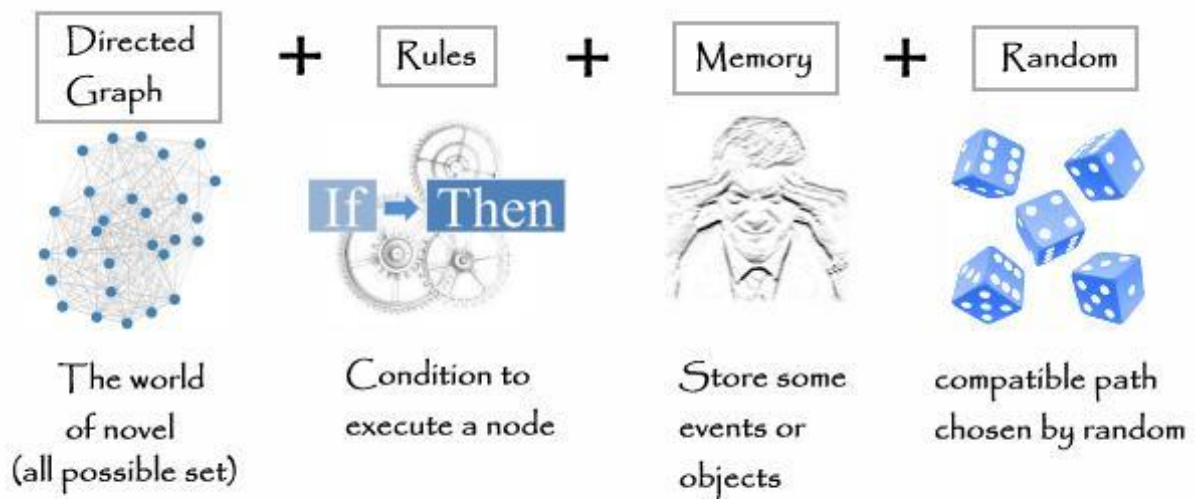
2.2 For all Operating Systems

In the directory "for_all_os" you have an executable JAR. So make sure you have a Java Virtual Machine installed (http://java.com/download). Then execute "novelgenerator.jar" with your Java Virtual Machine, for example for windows by command line: java.exe -jar novelgenerator.jar

2. Introduction

Novel Generator is a java software that permits to do three main things:

- Create a directed graph (the world of the story)
- Generate a story from a graph that contains all possible set
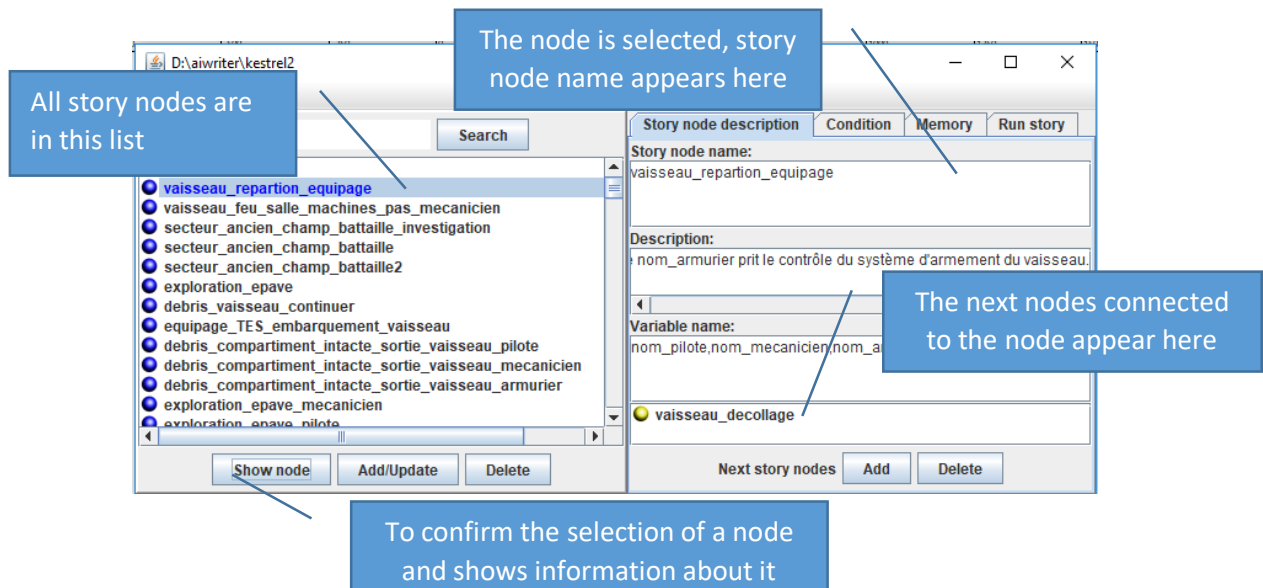- Export your world to CmapTools to see the graph of your world

3. Principle

Directed Graph + Rules + Memory + Random

The world of novel (all possible set)

Condition to execute a node

Store some events or objects

compatible path chosen by random

Graph represents the world of the story; the novel is generated from the execution of a path. The path is randomly chosen but it must respect condition defined by the user. In some points that's similar to an expert system by executing rules when conditions are verified.
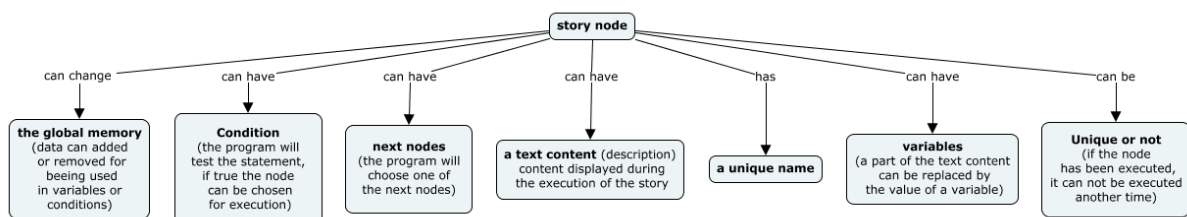
4. Editor

4.1 General overview

All story nodes are in this list

The node is selected, story node name appears here

The next nodes connected to the node appear here

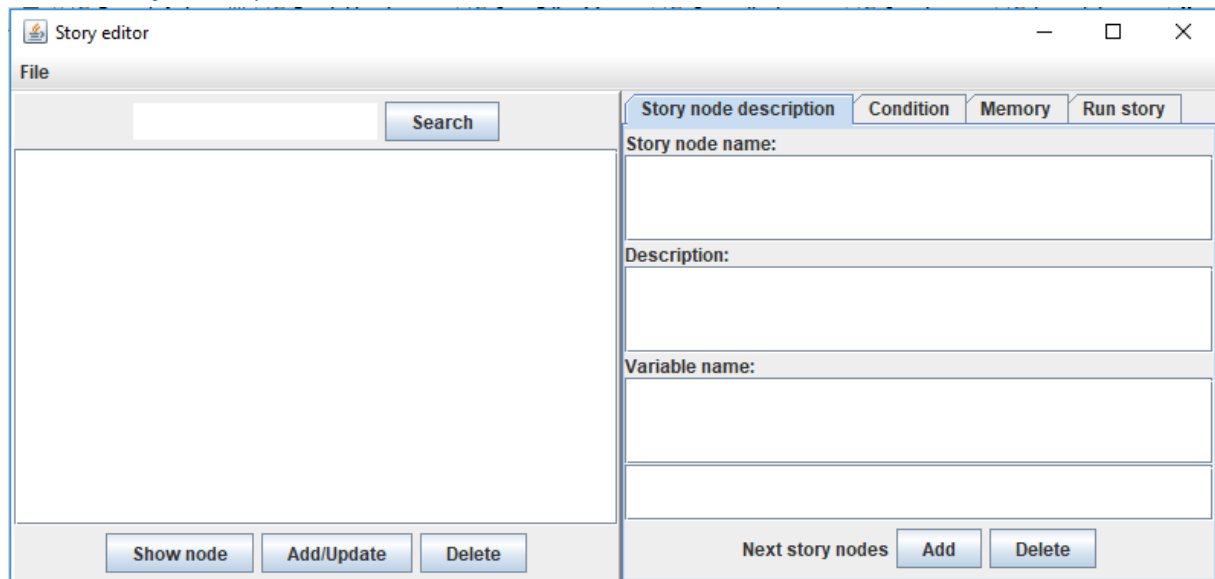To confirm the selection of a node and shows information about it

4.2 Story node

The world of the story is built of story nodes. You have to create nodes and add links between them.
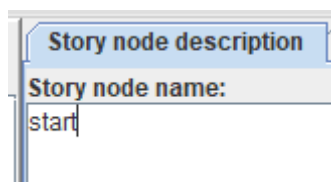
A story node contains the following information:
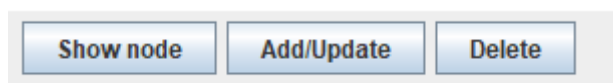
4.2.1 Add a node

4.2.1.1 Your first story node

When you first open the editor, the list of story nodes is empty. The first thing to do is to create a node. So in the right part, In the text field story node name, write a name for the node.
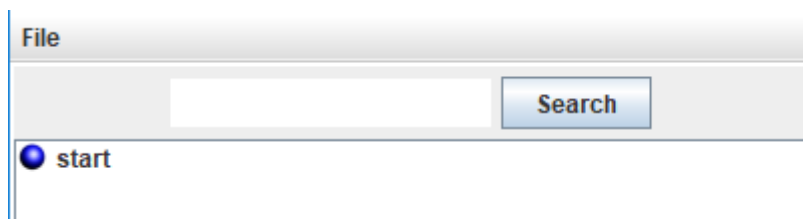

Then click on the button "Add/Update"

You just added a new story node

4.2.1.2 Adding another node

To add another node just choose another name in the text field node's name then click on "Add/Update". You can add a description to the node (the next field), it represents the text content of the node. This text will be displayed during the execution of the story.

4.2.1.3 Update a node

To update a node, first select a node in the lift on the left. Then click on the button "Show node", information related to the node will be displayed on the right panel.
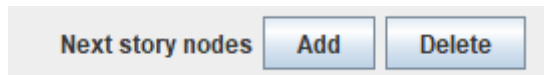

You can change the text content of node, in the description field that is currently empty, you write "I am the first node" then click on the "Add/Update" button to store the change. The node name already exists so the system will not create a new node but just update information about it.
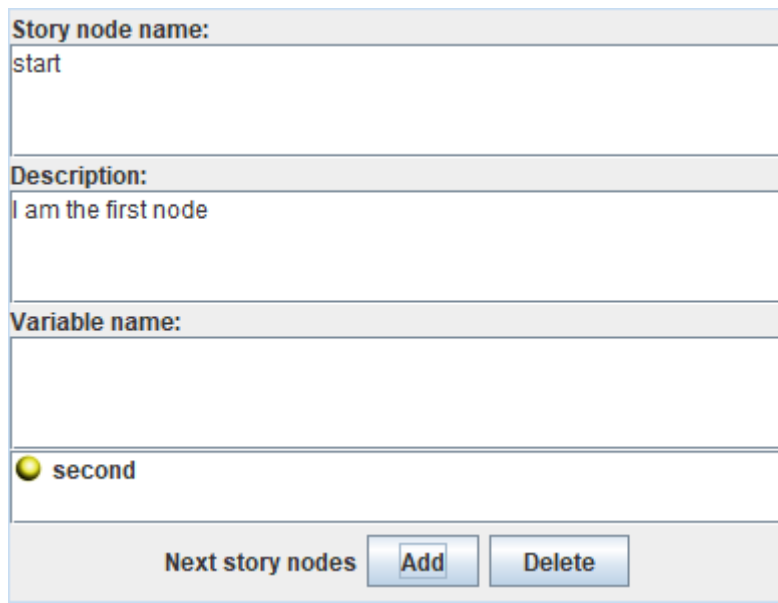

The node "start" has now the following text content: "I am the first node".
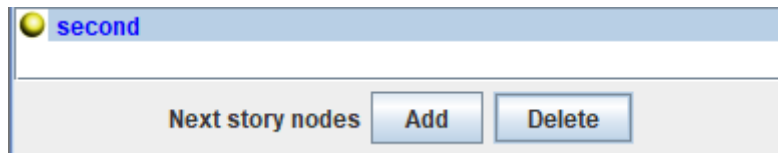
4.2.1.4 Link nodes together

Nodes can be linked to one of more nodes. To link a node to another one, first select a node, the node's name must appear on the right field. Then click on a node in left list, then click on the "add button".
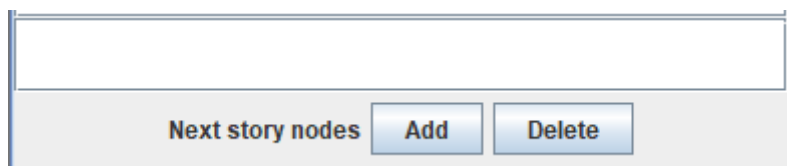
The next screen shows that the node "start" is linked to the node "second".

4.2.1.5 Delete a linked node

To delete a linked node, select a node with a yellow icon, then click on delete.

The node is deleted.

4.2.1 Description

The field description contains the text that will be displayed during the execution. This text can contain a keyword "<chapter>". That represents a counter, the counter is incremented each time the program enters in the node. In the field description, the character "#" is recognized as a separator for different version of the text but to express the same idea. It permits to vary the vocabulary; this way it would be not too repetitive when passing again in the same node. For example: "The room is dark. # There is no light in the room and it's hard to see something # The room is very dark, it's impossible to see something." When passing in this node the program will take randomly one the different version of the text description. The text description can also be used to display the content of the memory.

- **Example with "<chapter>" keyword:**

- **Example with using "#":**

Result when the program executes the node: "The room is very dark, it's impossible to see something." So one of these is randomly chosen. This way it's not necessary to make three different nodes.

- **Example with including variable, variable permits to store data in the memory of the story:**

At first the variable should be initialized with a chain of characters or number (integer):

Result: "my name is Julien, I live in France, I am 30."

4.2.2 Memory

4.2.2.1 Add element in the memory

You can use memory as seen before to initialize variables, but you can use it for other things like this:

So to represent the fact that the hero found a key, we can add in the memory:

The story engine will add 1 to the element key. You can also assign an integer value by using "=", for example you can write: key=1, means that the memory contains only one element of "key".

Remark: only positive integer can be set.

4.2.2.2 Remove element from the memory

So to represent the fact that the hero lost his key, we can change the memory state:

Remark: you can remove or add more elements of the same object by using the sign star followed by a positive integer or another variable name. If you want to add or remove more objects but with a different type, you can use the separator comma: key*1, money*5, helmet*1

4.2.3 Condition

Before entering a node, the program first has to determine which node it can enter in. So, if a node contains a condition, the program will check the statement. You can only make one statement for each node.
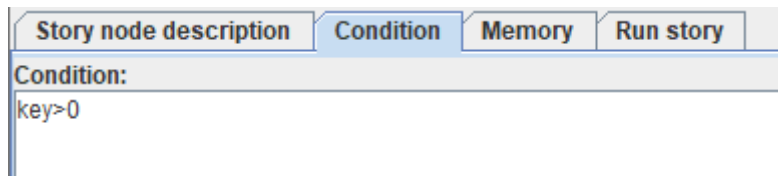
You can use the operators: <, >, =, >=, <= to compare with integer number or with other element of memory.
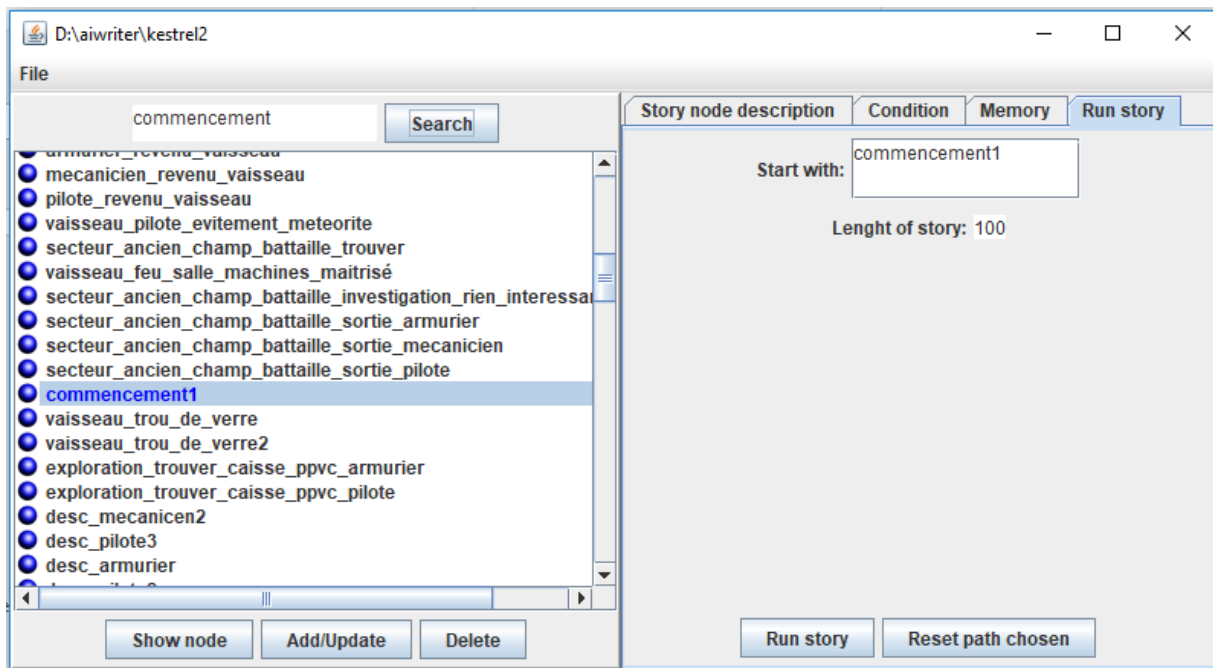
4.3.4 Search a story node

You can search nodes by entering a chain of characters in the search text field, it will return all story nodes that contains the chain.
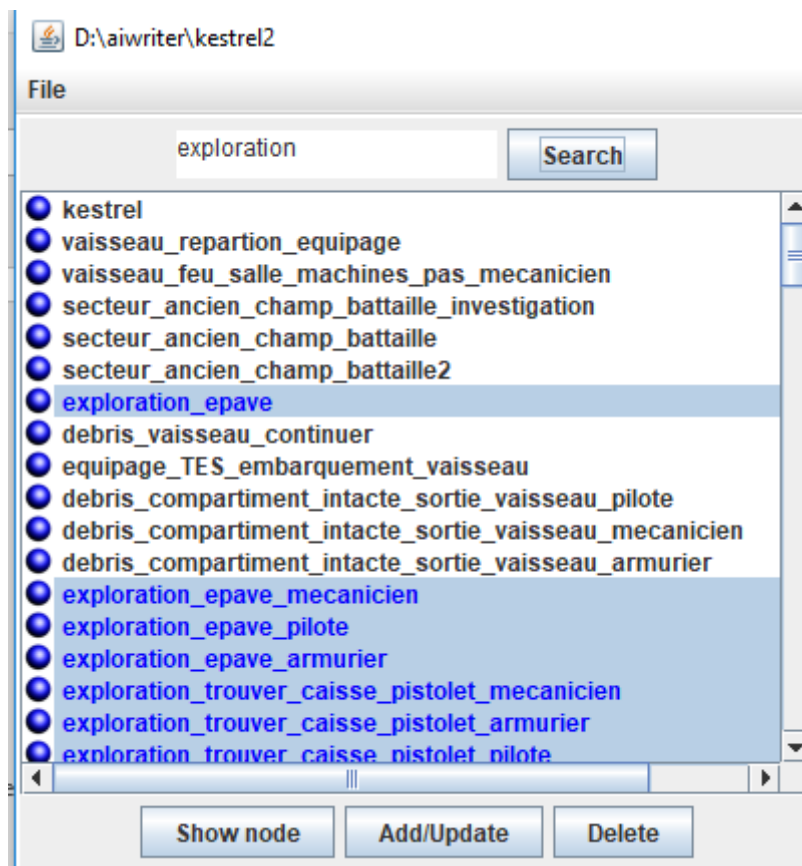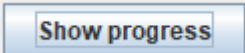

4.3 Run a Story

Once you have a world (nodes linked together) you can generate a story from it. You need a start point in your world. Then set how many nodes you want to execute.

If a path is already stored, you can reset the path (button "reset path chosen"), it will create a new story. If you already have generated a story you can set a longer length for the story, then the program will continue the story from the last stop.

Be pressing the button **Show progress** you can see in which node the program passed in:
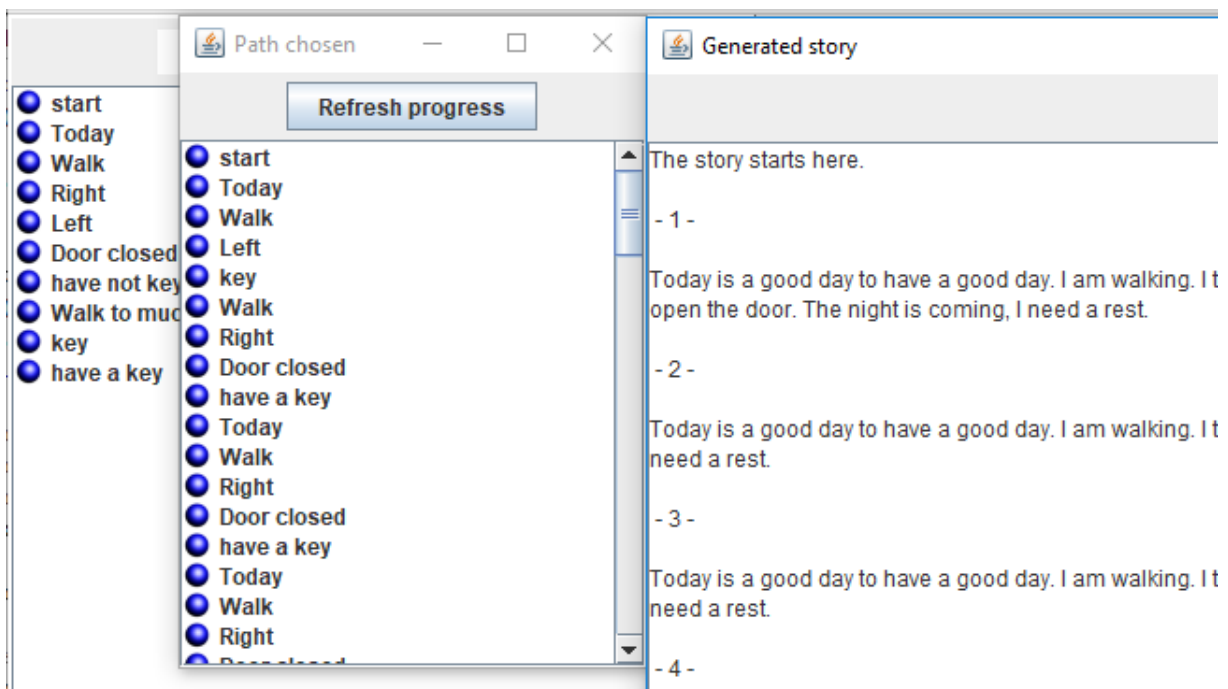
4.4 File

4.4.1 Story format

When you save your story, the program generates an XML file that looks like that:

```
<?xml version="1.0" encoding="UTF-8"?>
<story title="" startPoint="start" length="100">
    <node id="start" textContent="start" memoryAdd="" memoryRemove="" memoryC
    <node id="a day" textContent="The sun was rising." memoryAdd="" memoryRem
    <node id="day exploration" textContent="Our hero left his shelter and was
    <pathChosen id="a day" />
    <pathChosen id="day exploration" />
</story>
```

It contains your world story and a saved path if a story has already been generated.

4.4.2 Library format

A library is a file that can contain one or more novels/stories. It just easy to manage stories. You have all your stories in one xml file. You can remove or add story from it. You can load a story from it.
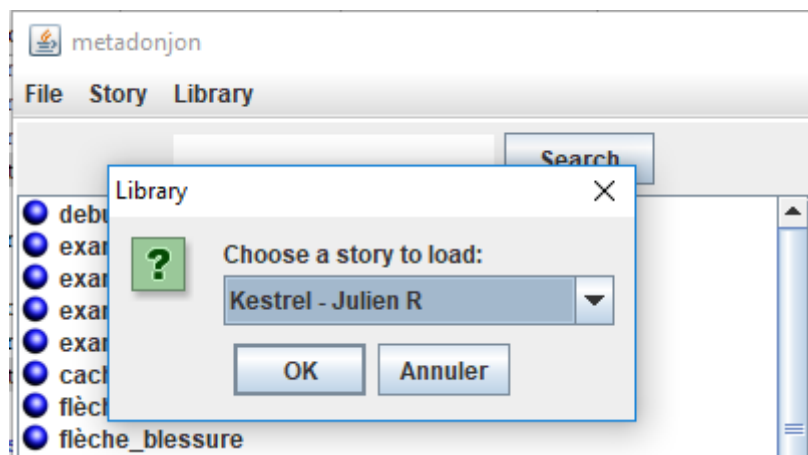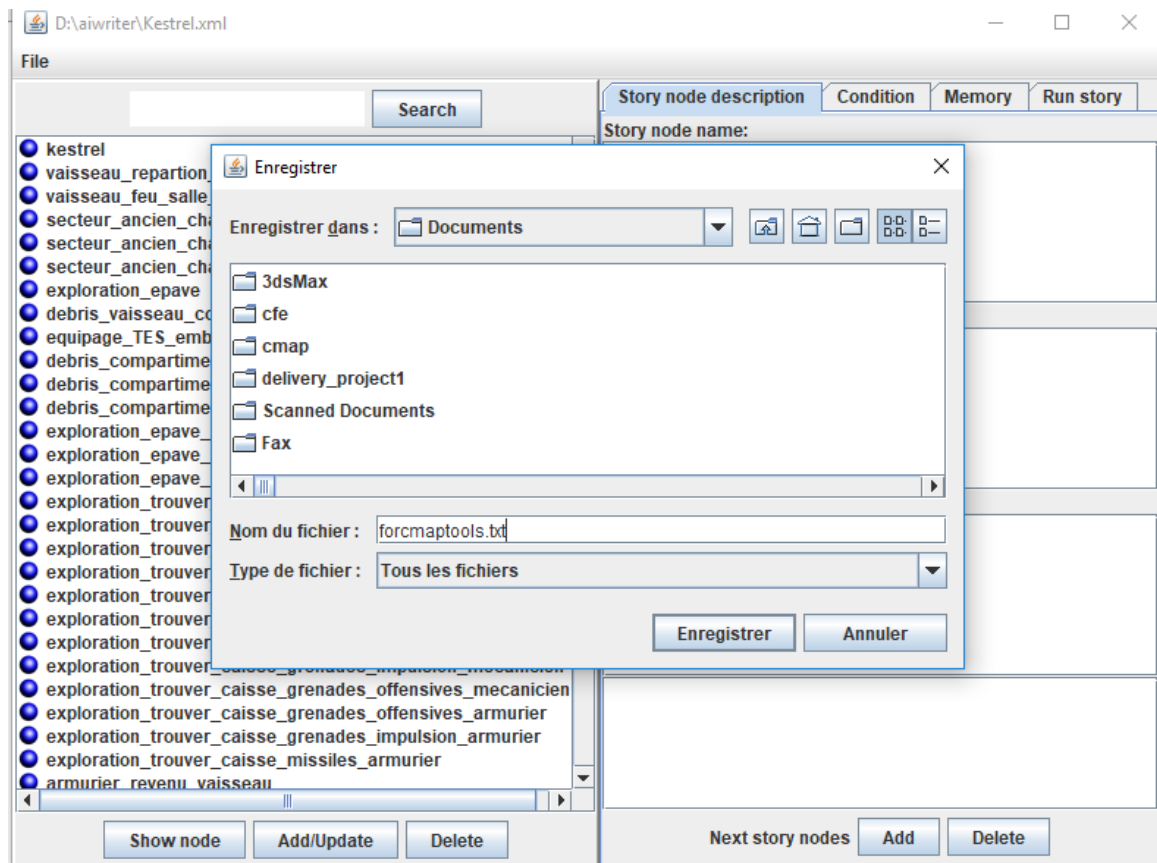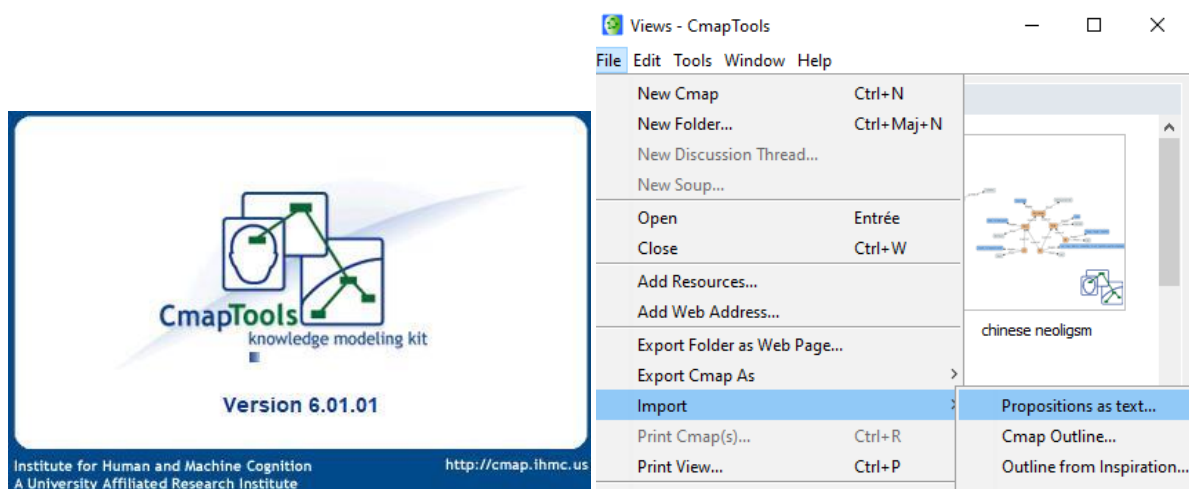

4.5 Export to CmapTools

You made a big world and you want have a global view of it. You can use CmapTools to view it.

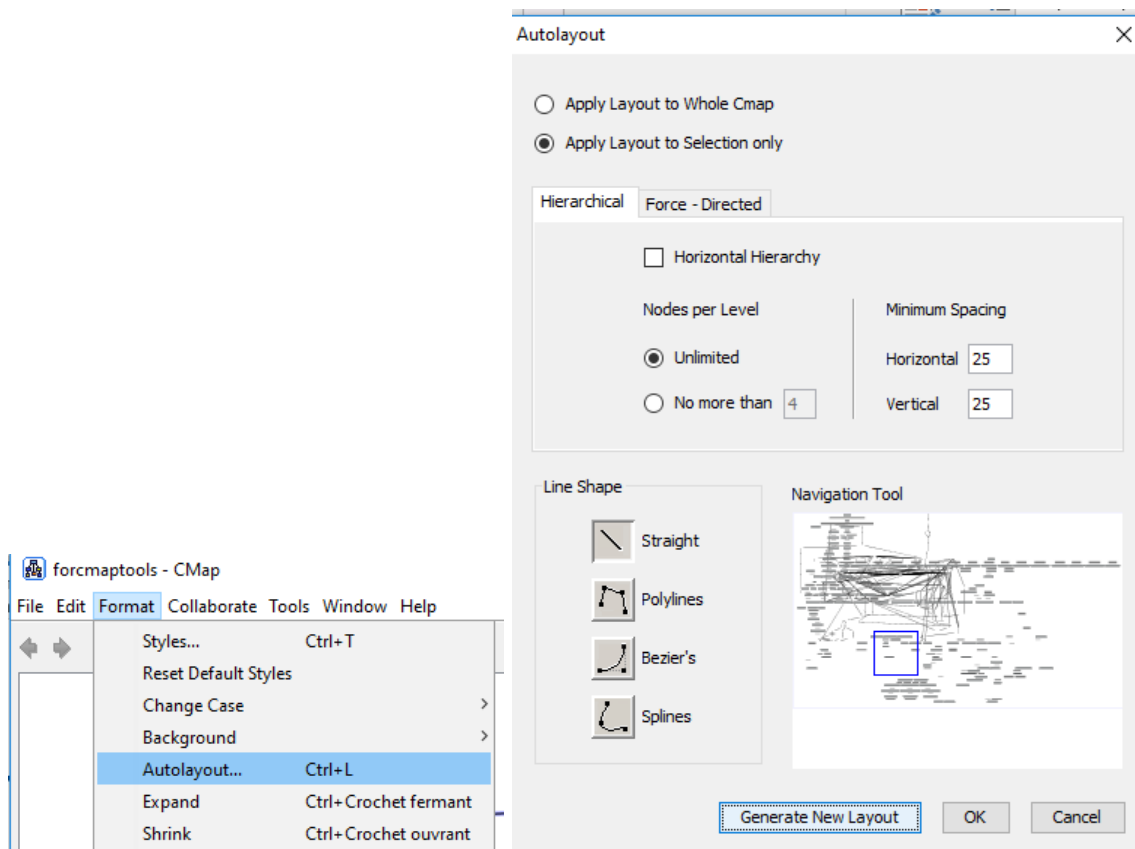First export your world: File>Export

Make sure you export the file as a text file. (add .txt to your file on windows)
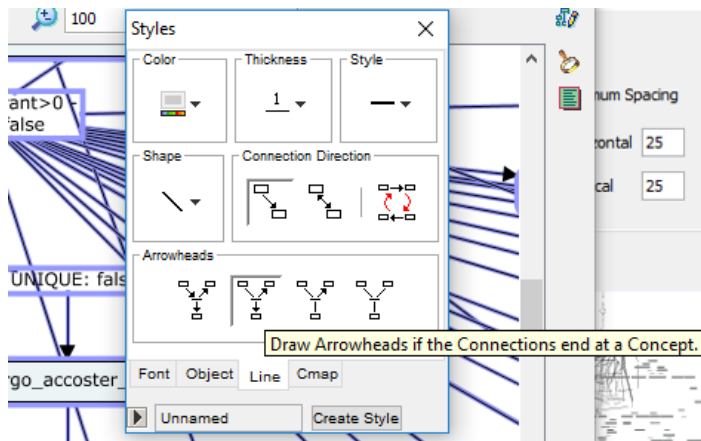
Then launch CmapTools:

Choose your text file that you exported previously. Then you will get a graph. You can arrange it by doing this:

Click on « Generate new Layout » then « ok ». You will get a better organized graph.

You can also change the style of arrow to see the directed graph: Format>Style

Click on the "Line" tab, then choose the second icon of Arrowheads.

Remark: You need first to select all nodes to do it right. "ctrl-a"

On the graph you can see nodes and their links, on the link you will have the information you set in the editor.

Remark: The text content of the node is not displayed on the graph.

4.6 Graph viewer: browse the story world graphically

The story world is a list of linked nodes, to detect nodes without linked or just to have a global view of the story, you can use this feature: