Railway-Editor user manual

Arthur Lagarce

I Introduction:

The Railway-Editor project is a part of the "Network Journey simulator" project driven by Thales® which aims to create a realistic simulator of a metro network in a city. The railway editor is a part which has nothing to do with simulation, its role is to simplify the configuration of the simulator.

Indeed, in order to work properly the simulator needs to have a map, and events which describe the current day. This configuration is an XML file which sum up all stations and their information, all different lines with their stations, the different areas and their parameters and finally the events which will happened during the day. Thus, the Railway-Editor is a graphical solution to produce this XML configuration file. It can display a plan of the city you want and allows you to draw a metro map directly on it, then you can configure events of your map as you want and export everything as an XML configuration file for the simulator.

II Getting-started:

To run the Railway-Editor you just have to run the executable jar on your computer by double clicking on it or by going in the right location in your window console and taping "java -jar Railway-editor.jar" then a first screen will ask you to create a new map or load an existing one. Indeed, you can load an existing XML configuration in order to do some modifications on a previous map.

Figure 1: Starting panel of the editor

III Overview:

The main windows at it is presented below is divided in 3 parts, a main panel in the middle where the map is displayed, a toolbar panel on the right with the different actions buttons, and finally on the left a panel which recap the different events you have created during your edition session.
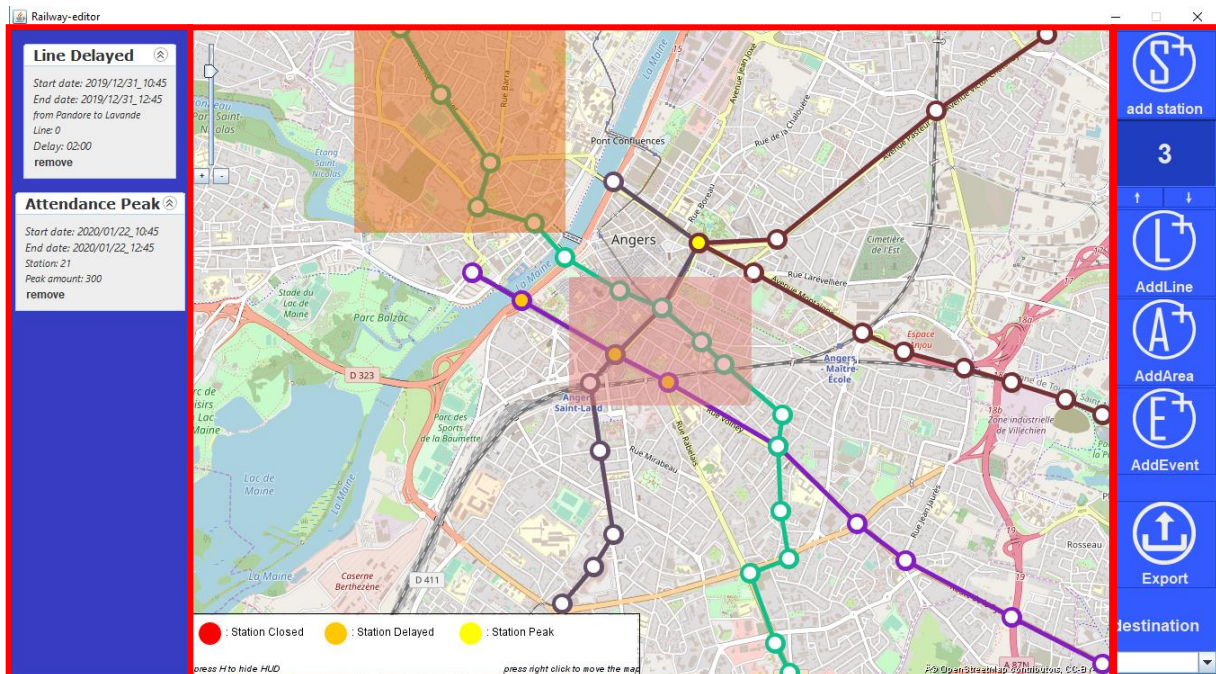

Figure 2:App overview (the 3 different panels)

The Main panel:

This panel represent your map, on the background you can see a city plan provided by OpenStreetMap® in order to help you to place your stations in a realistic way. Then on top of it the metro network map is drawn, each line has a different color, the stations are represented by a circle filled with white or with a specific color according to the event related to it. You can see which color correspond to which event on the bottom left corner in the caption Panel. The colored rectangles are "Areas ", basically they determine which type of population live in them and which type of population is more likely to go there.

The Events recap panel:

This panel is just here to remind you which events you added to your map and how you configured it. So, every time you add a new event, a new pane will be added to the panel, these are dropdown pane so if you have too many events you can reduce their size to gain space.

The Toolbar panel:

The Toolbar panel present the main basic actions you will need to edit your map properly.

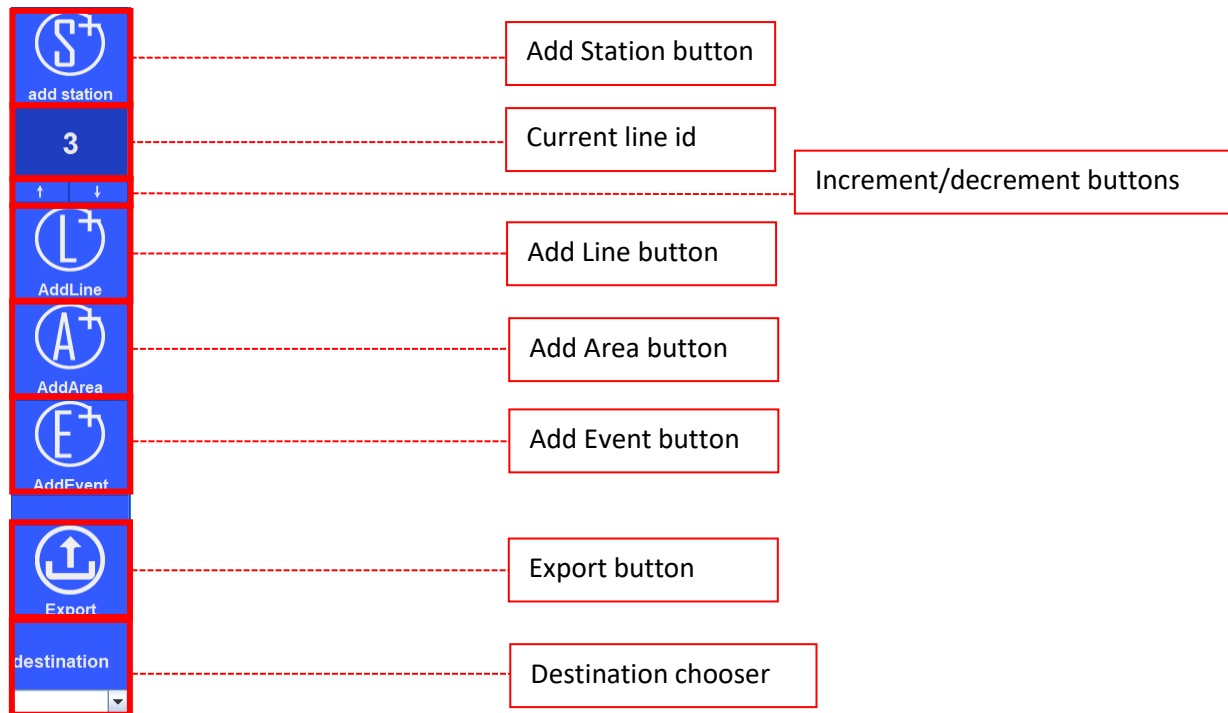|	
	Add Station button
	Current line id
	Increment/decrement buttons
	Add Line button
	Add Area button
	Add Event button
	Export button
	Destination chooser

Figure 3: ToolBar panel overview

IV Actions:

This part will present all the different actions in your disposition to create the maps you have in mind.

1 Adding a station:

To add a station just click on the button "add station" in the Toolbar panel it will add a new station on the bottom right corner of the last one of your current line. Be careful to have added a line BEFORE start adding station otherwise the add will not work.

Note: *the station will be added at the end of the current line, you can navigate between lines by increment or decrement the current line id thanks to "Increment/decrement buttons" present in the ToolBar Panel*

2 Adding a line:

To add a new line just click on the button "add line" in the Toolbar panel it will create a new line and automatically set it as current line, then you can add stations to it directly.

3 Adding an area:

To add a new area just click on the button "add area" on the Toolbar panel it will add a new area on the main panel.

4 Adding an event:

To add a new event just click on the button "add event" on the ToolBar panel it will start the event edition. Refer on the part "event edition" later in the manual to learn how to configure tour event.

5 Export :

To export your map just click on the "export" button on the Toolbar panel, then choose a location and a name for your file, then you can save it.

Note: *be careful to end your filename with a .xml otherwise your file will have no extension*

6 choose a destination:

By selecting the combo box you will have access to different city to move on. You can type the first letters of the city you are searching in order to find it, it is based on a database which contains 750 cities around the world.
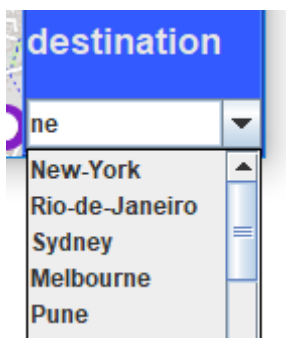

Figure 4: destination chooser example

7 mouse and keyboard actions on the main panel

A move a station:

You can move a station by dragging it on the main panel

B move all stations

You can move all station by doing a right-click drag on the map

C delete a station

You can right click on a station to delete it

D merge 2 stations

You can merge 2 stations by double clicking on the first station you wan to merge, then accept the confirm dialog and execute a simple click on the second station you want to merge.

E zoom in and zoom out

Simply use your wheel to perform a zoom in or a zoom out your map will move accordingly to the zoom level.

F hide/show caption panel

Press H to hide or to reveal the caption panel.

V Event-Editor section:

When you choose to add a new event, you have access to a brand-new window to configure it. On the left you have the list of available events and on the right a detailed window where you can configure the different parameters of your event.
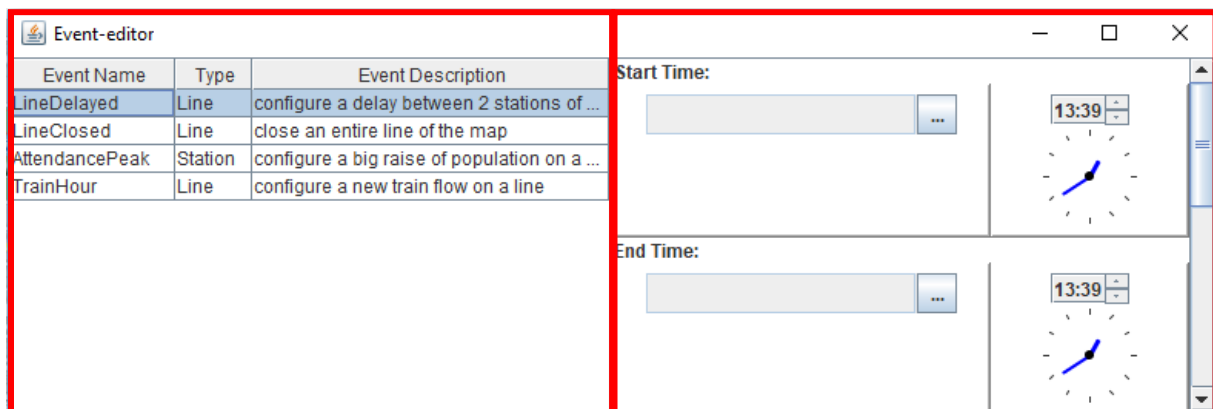

Figure 5: Event editor window overview

Note: *double click on the event type you want to display the right configuration panel*

In the configuration panel you must pick a start date, an end date a start time and an end time.

You may also have to select stations concerned, to do this you can manually enter ids of the stations or click on the stations picker button, this will show you back the map and you will be able to double click on the station you want to select.

Figure 7: date picker example

Figure 6:station picker buttons

Note: *you can remove an event by simply press the "remove" button on the Event recap panel*

VI Conclusion:

This editor is a complete tool to create and edit your maps for the Network journey simulator.

You still cannot separate 2 merged stations, but this should be achieve in future versions of the editor.