CHAPTER 8

MATSim JOSM Network Editor

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8.1   Basic Information

Entry point to documentation:

http://matsim.org/extensions → josm-plugin

Invoking the module:

Can be loaded as a plug-in from the JOSM editor.

Selected publications:

Kühnel (2014) (in German)

8.2   Introduction

A plugin for the JOSM (Java Open Street Map Editor) (JOSM, 2014), is available, simplifying the process of creating and editing MATSim networks. This plugin fully integrates with JOSM, benefiting from its built-in functionality.

8.2.1   Features

The MATSim JOSM network editor lets a reader preview, edit and save a MATSim network directly from the map. Basic support for converting and editing public transport networks is implemented. The plug-in allows automatic post-processing of a network by removing unnecessary intermediate nodes and links.

Convert MATSim networks from OSM. Load map data for a selected area directly from the Internet or load it from a local OSM file. Specify conversion parameters and save a MATSim network.
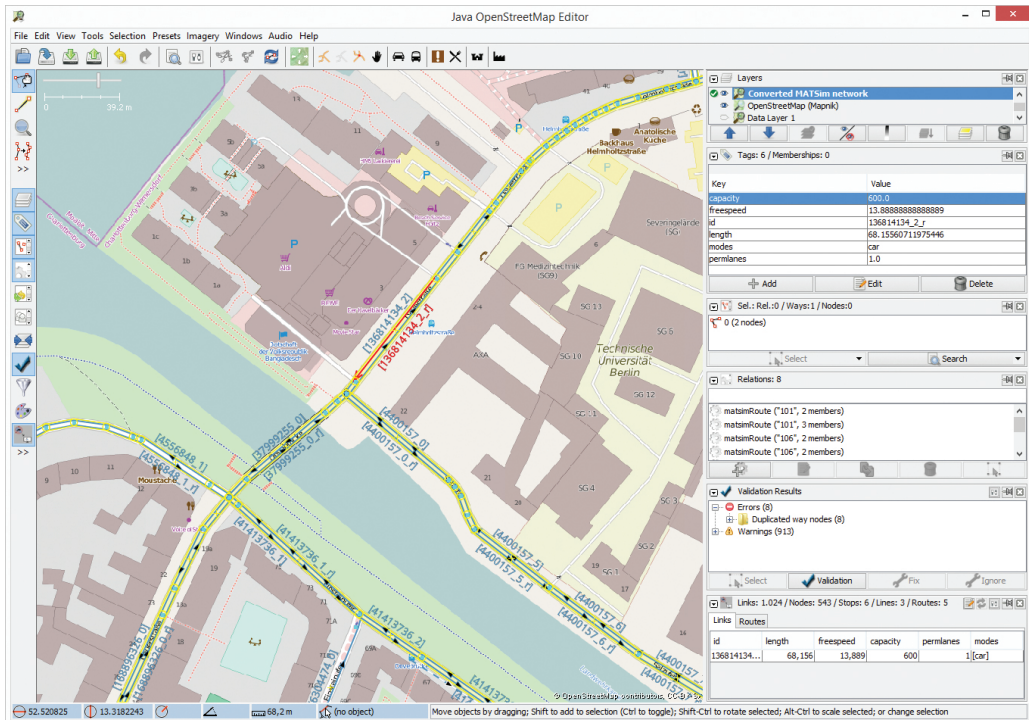
Figure 8.1: JOSM with converted MATSim network and OSM background imagery. Map data taken from OpenStreetMap (2014).

Visualize an existing or newly converted MATSim network along with other data like satellite imagery or other JOSM-supported layers.

Edit an existing or newly converted MATSim network with the available JOSM tools you know. Use the build-in undo and search functions of JOSM. Changes to the underlying OSM data are immediately reflected by the converted MATSim network. Use MATSim-specific presets to minimize errors.

Validate an existing or newly converted MATSim network to comply with requirements of the MATSim network file description. Visualize errors and fix them (automatically).

The next version will support public transport networks.

8.2.2   Installing the Plug-In

You do not need to download the source; it is in the JOSM plug-in repository. Just start JOSM and look for the MATSim plug-in under `Edit...Preferences...Plugins`. Download the list of available plug-ins and search for "matsim". Tick the box, press `ok` and restart JOSM.

8.2.3   Getting the Code

The source code is hosted on github (`https://github.com/matsim-org/josm-matsim-plugin`). Unlike MATSim, the build is not based on Apache Maven, but on Gradle. Editing the `Manifest`, downloading JOSM for compilation and building a flat JAR are easier in Gradle. Use your favorite IDE (Integrated Development Environment) to import the Gradle project and/or see the comments in `build.gradle` for details. You can run JOSM and the plug-in in the debugger.