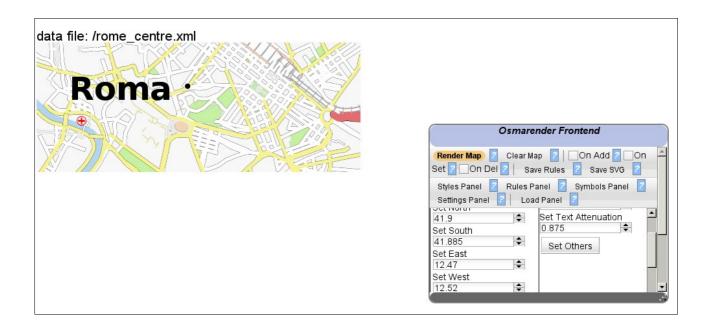
# Osmarender Frontend v.0.2 Manual







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## 1. INTRODUCTION

#### 1.1 WHAT OSMARENDER FRONTEND IS

Osmarender Frontend is a project, begun by Mario Ferraro thanks to <u>GSoC 2008</u> (view <u>abstract</u> or <u>the whole submitted application</u>), that has three main aims:

- Let the community propose enhancements to default Osmarender stylesheets the easy way
- Let everyone out there render a custom map without knowing XML internals, just playing with a shiny GUI interface
- Develop a Javascript API to let other developers contribute or start new projects

Osmarender Frontend is available in two flavours: an online and an offline version.

## 1.2 REQUIREMENTS

Osmarender Frontend needs very advanced browser features. It's tested only against Firefox 3, for the moment. There are plans to extend the browser compatibility in the future.

#### 1.3 OFFLINE VERSION

#### 1.3.1 Where to download

The v 0.2 offline version can be downloaded here: <a href="http://dev.openstreetmap.org/~Merio/releases/20080819\_osmarender\_frontend\_offline.zip">http://dev.openstreetmap.org/~Merio/releases/20080819\_osmarender\_frontend\_offline.zip</a>

#### 1.3.2 How to install

To install the offline version of Osmarender Frontend you have to just unzip the file in a directory of your choice and open **osmarender frontend.html** file in Firefox 3

# 1.4 ONLINE VERSION

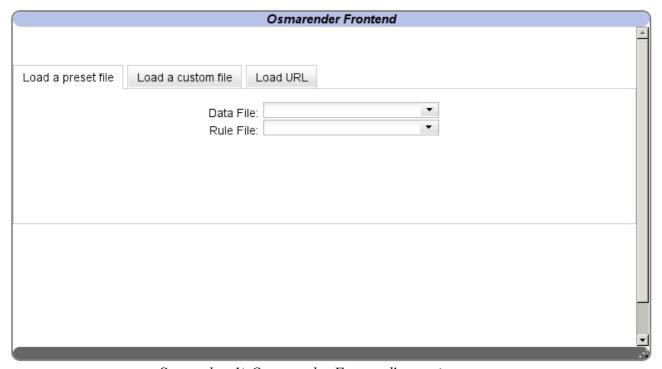
The online version can be found here: <a href="http://dev.openstreetmap.org/~Merio/osmarender frontend/osmarender frontend.html">http://dev.openstreetmap.org/~Merio/osmarender frontend/osmarender frontend.html</a>

#### 1.5 DIFFERENCES BETWEEN ONLINE AND OFFLINE VERSION

At the moment the only difference between the online and offline version is that, with the online version, you can load any osm file (see <u>Load a custom file (offline version only)</u>).

# 2. MANUAL

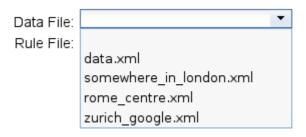
#### 2.1 LOAD PANEL



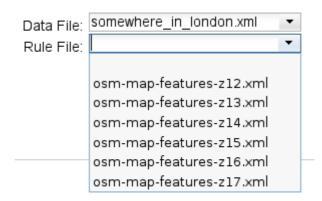
Screenshot 1) Osmarender Frontend's opening screen

When you open Osmarender Frontend for the first time, this screen will let you select which rule file you want to modify, and a data file to see your editing in real time. Furthermore, the key/value pairs in the data file will be parsed to guide you on selecting the right styles to modify and customize successfully your map.

# 2.1.1 Load a preset file

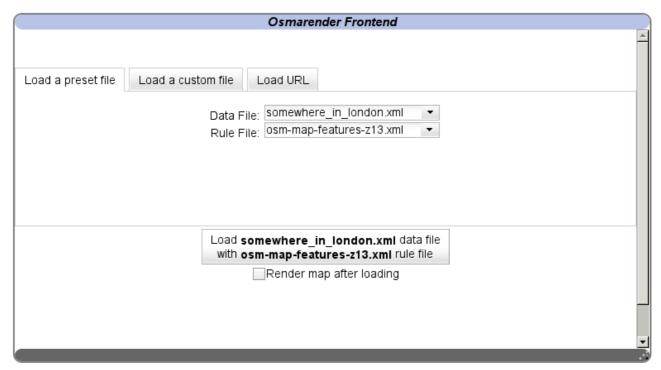


Screenshot 2: Selecting a preset data file



Screenshot 3: Selecting a preset rule file

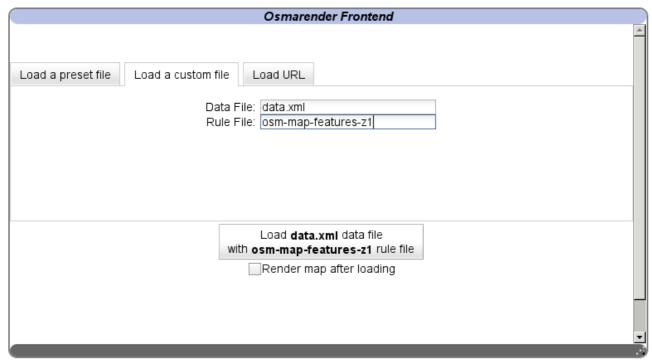
For both versions, there are 4 preset data files and 6 preset rule files that you can choose to edit. For the online version (at the moment) these are the only files you can use. In the future, a new feature will appear in the "Load URL" tab that will let you load custom bounding boxes. If you want to use custom files, at the moment you just need to download the offline version (see <a href="Where to download">Where to download</a> and <a href="Load a custom file">Load a custom file</a> (offline version only)).



Screenshot 4: Loading and rendering

After you've chosen the data file and the rule file to open, a button and a checkbox will appear. If you check "Render map after loading", then, after parsing the data file and the rule file, Osmarender Frontend will automatically show the map with the current rule file. Then just click the button to load the files and start editing Osmarender's rule file.

# 2.1.2 Load a custom file (offline version only)



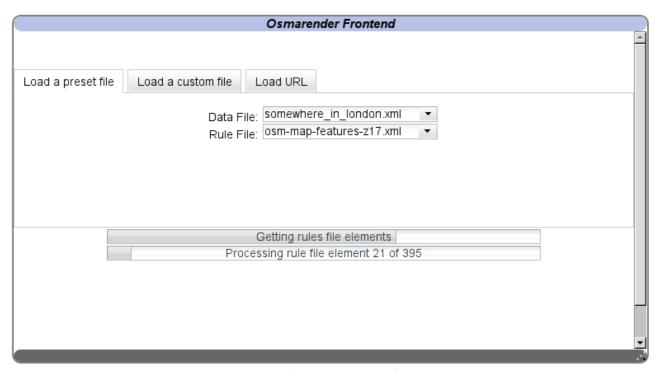
Screenshot 5: Loading a custom file

In offline version only, there is also a "Load a custom file" tab. This is useful to load a custom OSM data file downloaded with the <u>API</u> or via the <u>export tab</u>. Because of browser security restriction, you can only open files that are in the same directory of **osmarender\_frontend.html** file with .xml extension. So, if you unzipped the offline version in a directory like /home/yourname/osmarender\_frontend or C:\losmarender\_frontend, than just copy the downloaded file in the same directory. Rename it, for example, from map.osm to map.xml and then rewrite the name of the file in the "data file" edit box. The same applies for a custom rule file.

### 2.1.3 Load URL

At the moment, this feature is not yet implemented. In the future, it will let you download a bounding box from a permalink in the slippy map and use it as a data file.

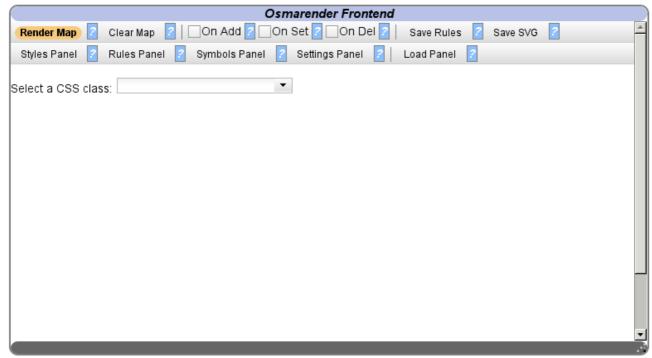
# 2.2 GUI



Screenshot 6: Progress bars

When you click in the load button, two progress bars will appear to feedback the operations that Osmarender Frontend is doing.

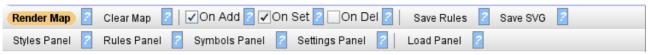
#### 2.2.1 First screen



*Screenshot 7: The styles panel* 

When all files are loaded, the main menu and the Styles panel will appear. Please notice that Osmarender Frontend is a floating window (the rendered map will be shown in the background). To move the window, just click and drag the violet title bar. To resize the window, use the triangular grey handle in the lower right corner.

#### 2.2.2 Menu



Screenshot 8: Main menu

The main menu is divided into two section. The upper one contains some generally useful commands, while the lower one is a shortcut for every panel in which Osmarender Frontend is divided (for more information on them, read further). Every button has a little "?" tooltip on its right. Just put the mouse over any tooltip to see a little help.

**Render map**: you can click on this button any time to re-render the map using the current rule file.

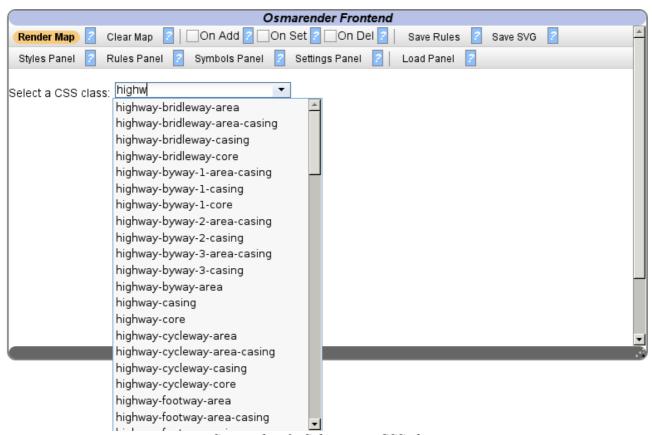
**Clear map**: if your browser and/or Osmarender Frontend window become slow (i.e. with a slightly big map), you can click on this button to clear the rendered map in the background. The browser will instantly become fast like before.

On Add/On Set/On Del: Check one of these checkboxes to re-render the map automatically when you add, modify or delete a style class/property in the Styles panel. Depending on the data file, every rendering could be time consuming, so they're not checked by default. However, checking them will give you the WYSIWYG (What You See Is What You Get) feedback you might expect from a tool like this.

**Save Rules/Save SVG**: With this buttons you can save the edited rule file and the SVG of the map in the background. For security purposes, Javascript in a browser can't write into the disk, so this feature needs some work from you than it should be. Just click one of the button: a new tab will appear. Don't mind the output you see in that browser tab, but just use the File->Save As function of your browser to save the file anywhere and with any name you want.

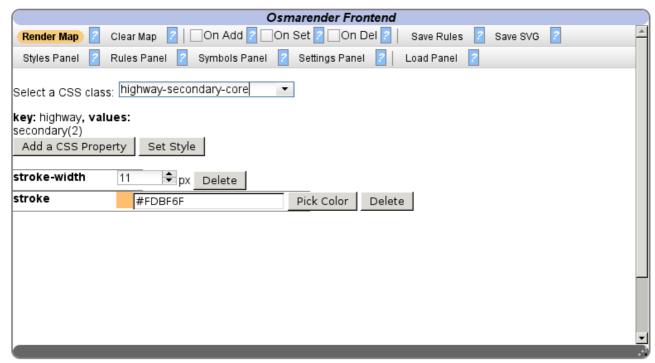
#### 2.3 STYLES PANEL

# 2.3.1 Editing a CSS class



Screenshot 9: Selecting a CSS class

To start using Osmarender Frontend, just select a CSS class to edit from the combobox. If you don't know which is the right class to edit, try to start from the rules panel (see <u>RULES PANEL</u>). The combobox, as you can see in the screenshot, is an autocomplete one. So, if you remember the name of the class, you can just write the first letters, and the combobox will filter the list accordingly. Every Osmarender Frontend's combobox has this autocomplete feature (even in the load panel!).



Screenshot 10: JUICE (Javascript User Interface CSS Editor)

Once you've selected a CSS class from the combobox, some new components will appear in the window.

**key/values**: It displays the key/value pairs every editing of the current CSS class will affect.

**Add a CSS property**: Will display a dialog window to add a CSS property to the current class. See <u>Adding a CSS property</u>. If "On Add" in the upper menu is checked, than the background map will be re-rendered automatically.

**Set Style**: Save every modification you've done in the CSS class to the current rule file. If "On Set" in the upper menu is checked, than the background map will be re-rendered automatically.

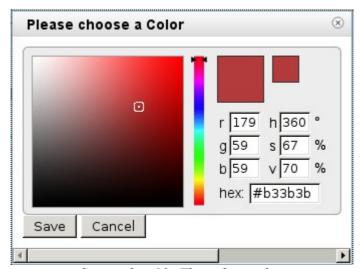
**Delete**: This button will be shown on the right of every CSS property. Just click on it to delete the matching property. If "On Del" in the upper menu is checked, than the background map will be re-rendered automatically.



Screenshot 11: Editing a CSS property

Every CSS property can be edited with a proper widget. For example, if you're editing a number, a spinner will appear. The most advanced widget will be shown with *stroke* or *fill* properties. As you can see in the screenshot, the color can be edited directly in the edit box. Everything color you'll write in the edit box (if it's a valid color) will be automatically shown in real time in the little box on the left. If you don't know how to write valid colors, or just want to pick a particular color that needs hex format, than you can just click on "**Pick Color**" to show a color picker.

# 2.3.2 The color picker



Screenshot 12: The color picker

The color picker will be shown in a dialog window. Just click on the square on the left (or drag the little white square around) and on the bar in the center of the window to change the color. A preview will be shown in the upper right section of the window. If you find the color you want, than just click **Save**. This will update the edit box in the main window. If you don't want this to happen, just click **Cancel**. Remember that, even if you click "**Save**" your modification won't be saved on the current rule file before you click on the "**Set Style**" button.

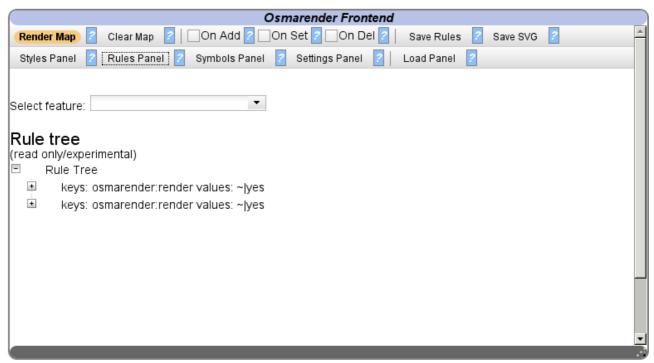
# 2.3.3 Adding a CSS property



Screenshot 13: Adding a CSS property

This window will let you add a CSS property in the current CSS class. Just fill the name of the property on the left, and the value on the right and click "Save" or "Cancel" as needed. Clicking "Save" will change the current rule file immediately.

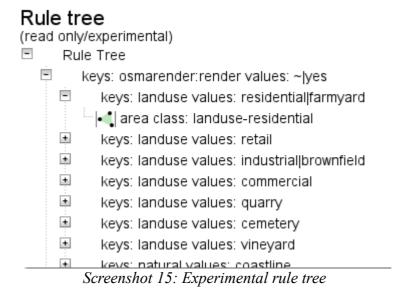
### 2.4 RULES PANEL



Screenshot 14: The rules panel

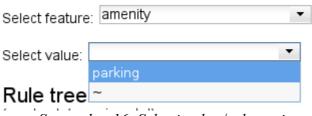
The rules panel has the purpose to guide you on choosing the right CSS classes to edit to affect the wanted key/value pair. It will be, in next versions, the core section in which you can actually add/modify/delete Osmarender's rules.

# 2.4.1 The rule tree (experimental)



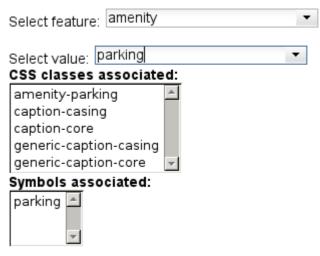
In the lower section of the panel, an experimental tree with all rules in the Rule file is shown. Just use the "+" and the "-" buttons to explore the whole tree. This is just a read-only experimental feature for the moment. If you notice any difference between what is in this rule tree and what is in the actual rule file, please let me know (see <a href="FEEDBACK AND BUG REPORTING">FEEDBACK AND BUG REPORTING</a>).

# 2.4.2 Editing CSS classes and viewing symbols from key/value pairs



Screenshot 16: Selecting key/value pair

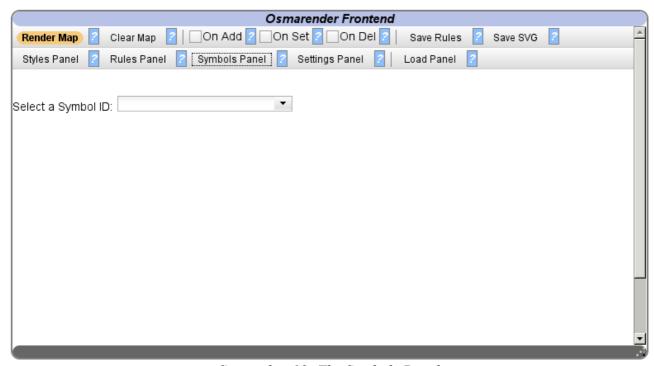
In this panel you can find all key/value pairs parsed from the data file. When you select a feature (a key) from the combobox, another combobox will appear, to show matching values that are in the data file. Beside any value, also a tilde (~) is shown. The tilde means an "undefined value". If you want to read more about it, there is a clear explanation in Osmarender's wiki.



Screenshot 17: Viewing associations

After a key/value pair is selected, a list of matching CSS classes (or symbols) will be shown. You can click on any CSS class to edit it in the Styles panel (see <u>STYLES PANEL</u>). If there are Symbols associated, then just click on the name of a symbol to see it in the Symbols panel (see <u>SYMBOLS PANEL</u>).

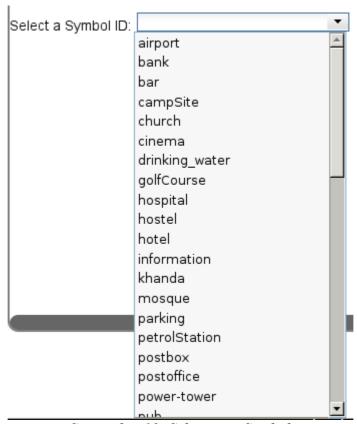
### 2.5 SYMBOLS PANEL



Screenshot 18: The Symbols Panel

In this panel you can view all symbols that are hard-coded in the rule file. A future version will let you upload and hard-code new symbols.

# 2.5.1 Viewing symbols



Screenshot 19: Selecting a Symbol

As for any other combobox in Osmarender Frontend, just select a symbol from the list or write its name to filter it from the whole list. When you select one symbol, a preview of it will be shown right below the combobox. A list of key/value pairs that use that symbol will be shown as well.

# 2.5.2 Attaching a symbol to a key/value pair (experimental)

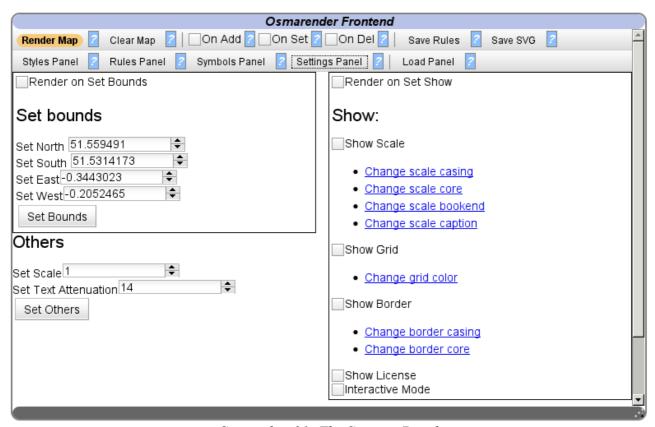


Screenshot 20: Attaching a Symbol

If you've chosen a key/value pair in the Rules panel (see <u>RULES PANEL</u>), than, using the link "**Attach this symbol to...**" you can make that symbol appear near every node that matches that key/value pair. You can also set its width/height and the layer.

**Please note**: this feature is experimental, you need to be sure that **the selected key/value pair represent a node**, there is no automatic check about that. Furthermore, at the moment, as for all the other rules, **there is no way in the frontend to edit or delete the rule once created**.

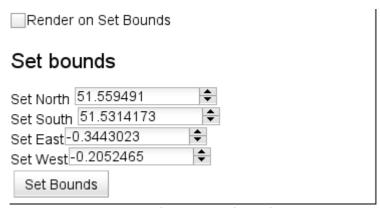
### 2.6 SETTINGS PANEL



Screenshot 21: The Settings Panel

In the settings panel you can modify some of the global settings for the rendering.

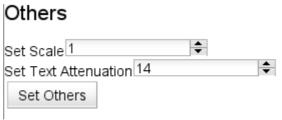
#### **2.6.1 Bounds**



Screenshot 22: Set bounds

If your data file has not been downloaded using the <a href="export tab">export tab</a>, or the API version you used didn't support the <a href="bounds">bounds</a>> element, you'll notice (as in the <a href="somewhere\_in\_london.xml">somewhere\_in\_london.xml</a> preset data file) that some features will be outside the bounding box you've chosen to download (<a href="see bounds section on Osmarender's wiki">see bounds section on Osmarender's wiki</a>). Furthermore, sometimes you may want to render only a section and not the whole map. If the data file doesn't have a <a href="sounds">bounds</a>> element, the min/max lat/lon of the nodes contained in the data file will be automatically calculated by Osmarender Frontend and will be shown in the spinners. You can edit the north/south/east/west bounds of the map using them, saving them in the current rule file by clicking on "Set Bounds" If you want the map to be automatically rerendered when clicking on the button, just check the "Render on Set Bounds" checkbox.

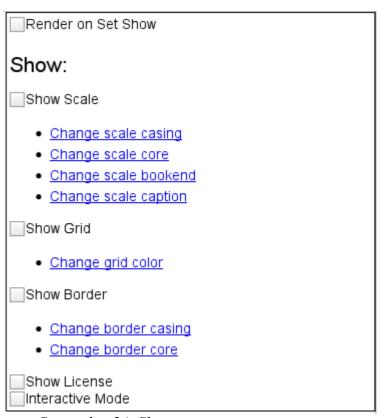
#### **2.6.2 Others**



Screenshot 23: Scale and Text Attenuation

Here you can change the <u>scale</u> and text attenuation of the map.

#### 2.6.3 Show



Screenshot 24: Showing some map accessories

Here you can ask to show various accessories in the map, like its <u>scale</u>, a <u>grid</u>, the <u>border</u> and the <u>OpenStreetMap's license</u>. Clicking on "**Render on Set Show**", every time you click on a checkbox the map will be re-rendered. You can also show the controls for the <u>interactive mode</u>, however they won't work, as Firefox 3 doesn't support Javascript for inline SVG. You can try saving the SVG file clicking on the "**Save SVG**" button in the upper menu and reloading it in Firefox with "**File->Open File**" to see it working.

From this section of the settings panel, you can use some of the shortcuts to Osmarender's preset CSS classes and alter their styles.

# 3. TROUBLESHOOTING

# My browser/Osmarender Frontend become really slow after map's rendering

There is nothing I can do about it, it depends strictly on the browser handling of inline SVG and your PC. There is a button in the upper menu, "Clear Map", that will clear the map in the background, so the browser will be immediately more responsive again. Please also remember that you shouldn't use big maps with Osmarender Frontend. Try to use littler maps with less data that are significant to you for rules file tweaking instead.

In my country we use a "," instead "." to separate the integer from the decimal part of a number. The spinners don't work.

This is a well-known bug, that should be workarounded for the moment. The <u>online version</u> contain the workaround, but the <u>0.2 offline version</u> has been released without this workaround. If you encounter this problem, than I suggest to download <u>Quick Locale Switcher Firefox addon</u>, and change your locale to <u>en-us</u> while using Osmarender Frontend. I know this is annoying, but it seems to come from a <u>DojoToolkit bug</u>, that I hope will be fixed soon.

## Security

There are <u>issues with Dojo i18n and Firefox 3 default security</u>, that affect the offline version of Osmarender Frontend. If you encounter problems, try writing "**about:config**" in Firefox 3 (where you normally write Internet URLs) and creating/editing the following keys:

security.fileuri.origin\_policy=4
security.fileuri.strict\_origin\_policy=false

Please refer to Mozilla's knowledge base to know what these settings (<u>origin\_policy</u> and <u>strict\_origin\_policy</u>) mean, if you really want to change them permanently or just when using Osmarender Frontend. I'm only writing the current solution found in the Dojo forums, use it at your own risk.

## 4. FEEDBACK AND BUG REPORTING

If you want some new cool feature or you found an annoying bug... or you just want to thank me or insult me, you can use the following tools:

**Trac**: <a href="http://trac.openstreetmap.org/">http://trac.openstreetmap.org/</a> (use Osmarender\_Frontend component, you need to be a registered OpenStreetMap user and use the same username/password you use, for example, to upload GPX traces).

Wiki: <a href="http://wiki.openstreetmap.org/index.php/Osmarender\_Frontend#Bugs">http://wiki.openstreetmap.org/index.php/Osmarender\_Frontend#Bugs</a> This is only if you really don't want to bother with trac, but I recommend using it instead, my life will be easier and I will be eternally thankful to you.:)

**Blog**: <a href="http://osmarenderfrontend.wordpress.com/">http://osmarenderfrontend.wordpress.com/</a> You can also make a comment in Osmarender Frontend's blog.

# 5. USEFUL LINKS

# 5.1 Try

Online Version (will be always updated to the latest version)

#### 5.2 Download

- 0.2 Offline Version
- 0.2 Online Version zipped

#### 5.3 Read

- Wiki
- Blog

# 5.4 Learn

- Screencasts (direct link to 0.2 version screencast)
- Manual

#### 5.5 Contribute

- Trac (for bug reporting, use Osmarender Frontend component)
- SVN Trunk
- SVN 0.2 Tag

## 6. ACKNOWLEDGEMENTS

First of all, I would like to thank <u>Google</u> for this opportunity to contribute to <u>OpenStreetMap</u>, thanks to <u>GsoC 2008</u>, and <u>Frederik Ramm</u> for his great patience on mentoring me.

#### And then...

- Claudia Pirina, my girlfriend, for her endless support before and during my GSoC 2008 coding... and her patience during our outdoor mapping activities.
- Martin Koppenhoefer, for his encouragement when I was starting the project, his support every time I needed it, and his PR on the talk-de list.
- Etienne Cherldu and Knut Arne Bjørndal, for Osmarender, for your help about Osmarender and for all the good time!
- **Simone Cortesi**, for all the good time at SOTM08/Montesilvano/Elice... etc etc .. and for his encouragement on this project.
- Tom Hughes and Sebastian Spaeth for their patience on supporting me for SVN and DEV accounts/management
- Ivan Sanchez Ortega, Dair Grant and Steve Chilton (MAJOR travel companions at SOTM08!).
- Alessio Zanol (malgar) for our great IRC conversations and his encouragement.
- Carlo Stemberger, Francesco de Virgilio, Giovanni Mascellani, for their feedbacks and for having given me the idea to write this manual.

Finally, I would like to thank everyone met at <u>SOTM08</u>, the list would be too long:)