

Roadnet: XML to SVG road networks topology converter

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Getting Started

- `$ ruby parser.rb -f rd.xml`
- `-f` option specifies input xml file
- Optional `-o` option specifies output html file containing svg graphics

XML input

- Nested hierarchies
- Road, street, and avenue types
- Specifiable attributes:
 - Intersection-radius
 - Angle-offset
 - Intersection-offset
 - Length of link

```
<?xml version="1.0" encoding="UTF-8"?>
<network intersection-radius="100">
  <avenue>
  </avenue>
  <road intersection-offset="180" angle-offset="-20" intersection-radius="20">
    <road>
    </road>
    <street>
    </street>
  </road>
  <road>
  </road>
  <road>
    <street>
    </street>
    <street length="400" >
      <road>
      </road>
      <road>
      </road>
    </street>
    <street>
    </street>
  </road>
  <street>
  </street>
</network>
```

How it Works

- Descends XML file recursively, drawing svg objects as it parses
- Uses Nokogiri to parse XML and create final HTML file

```
1  #!/usr/bin/env ruby
2
3  require 'rubygems'
4  require 'bundler/setup'
5
6  require 'nokogiri'
7  require 'optparse'
8  require 'solid_assert'
9
10 SolidAssert.enable_assertions
11
12 options = {}
13
14 optparse = OptionParser.new do |opts|
15   opts.banner = "Usage: parser.rb -f <xml filename> [ -o <output filename> ]"
16   opts.on('-f', '-x', '--xml input-filename', 'XML file name') { |v|
17     options[:filename] = v }
18   opts.on('-o', '-h', '--html output-filename', 'HTML file name') { |v|
19     options[:output] = v }
20 end
21
22 begin
23   optparse.parse!
24   mandatory = [:filename]
25   missing = mandatory.select{ |param| options[param].nil? }
```


SVG Output

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