



Fuxi API 1.0 Installation guide

Sentiment analysis API for Chinese

This guide walks you through setting up the Fuxi API — sentiment analysis REST api for Traditional and Simplified Chinese.

Technical prerequisites

The API requires Java 8 installed on your operating system. Download the latest stable JRE release here: <http://www.oracle.com/technetwork/java/javase/downloads/jre8-downloads-2133155.html>

You can check the Java version installed with the following command:

```
dmitry$ java -version
java version "1.8.0_45"
Java(TM) SE Runtime Environment (build 1.8.0_45-b14)
Java HotSpot(TM) 64-Bit Server VM (build 25.45-b02, mixed mode)
```

Installation

Untar the api package.

cd to fuxi-api directory and run:

```
dmitry$ bin/jetty.sh start
```

In the end of the printed log statements you should see lines similar to these:

```
. 2015-08-14 00:27:03.611:INFO:oejsh.ContextHandler:main: Started
o.e.j.w.WebAppContext@9f70c54{/zh,file:/private/var/folders/zn/
t2n70bv96hn96ws9r9qm9dth0000gn/T/jetty-0.0.0.0-8080-zh.war-_zh-
any-122497782479500094.dir/webapp/,AVAILABLE}{/zh.war}
2015-08-14 00:27:03.623:INFO:oejs.ServerConnector:main: Started
ServerConnector@5cc5b667{HTTP/1.1}{0.0.0.0:8080}
2015-08-14 00:27:03.624:INFO:oejs.Server:main: Started @4327ms
OK Fri Aug 14 00:27:07 EEST 2015
```

This means the API has loaded properly. Its endpoint on localhost:
<http://localhost:8080/zh/sentiment>

The logs are now stored in the logs/ directory with date timestamps. You can always consult them or tail in case you would like to monitor the system as it is being run.

In case you'd like to change the port on which the API is running from 8080 to something else, edit the start.ini file located in the jetty directory. Look for lines:

```
## HTTP port to listen on  
jetty.port=8080
```

In order to test the API on the spot, run the script test_api.sh:

```
dmitry$ ./test_api.sh  
Sending test JSON query  
{  
  "sentimentTag" : "POSITIVE"  
}
```

Request / response formats and error handling

This section describes the technical details of Fuxi API 1.0.

All input JSON messages must be in UTF-8. The structure of the JSON is as follows:

```
{  
  "text": "我的精灵学院已经升级到了2级。朋友们，都来仰慕我吧。我的昵称是Cx、小妞 | 可好。  
  《QQ飞车》是腾讯公司首款自主研发的3D时尚赛车网络游戏。3亿注册玩家，300万同时在线，无  
  人比肩的全球第一竞速网游！ speed.qq.com"  
}
```

The output format is the following JSON:

```
{  
  "sentimentTag": "POSITIVE"  
}
```

Any special control characters such as new line must be escaped or mime encoded. In case there is a parsing issue the system will report it in the following format.

Input JSON with newline character not escaped:

```
{  
  "text": "我的精灵学院已经升级到了2级。朋友们，都来仰慕我吧。我的昵称是Cx、小妞 | 可好。  
  《QQ飞车》是腾讯公司首款自主研发的3D时尚赛车网络游戏。3亿注册玩家，300万同时在线，无  
  人比肩的全球第一  
  竞速网游！ speed.qq.com"  
}
```

API response:

```
{  
  "message": "Illegal unquoted character ((CTRL-CHAR, code 10)): has to be escaped using  
backslash to be included in string value\n at [Source: java.io.StringReader@5553ceb1; line: 2,  
column: 105] (through reference chain: com.semanticsanalyzer.sentiment.api.InputJson[\"text\"])"  
}
```

API endpoints

Currently there is a single end-point to where you should send the JSON messages for synchronous processing. Assuming you run the api on the pre-configured port, you should use:

<http://localhost:8080/zh/sentiment>

The system expects a POST request with the JSON body of the specified format. Each text to be analyzed is expected to be in its own JSON POST request. The requests are synchronous: the client should expect the answer immediately.